OASIS – Online Analytical Statistical Information System

https://oasis.state.ga.us

Using OASIS for community health assessment and policy decision-making

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Georgia Department of Public Health

GEORGIA DEPARTMENT OF PUBLIC HEALTH

OASIS

ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM

Tools for Public Health and Public Policy Data Analysis

Accessing the Georgia Department of Public Health's Data Warehouse

This tutorial consists of using OASIS to answer 6 questions:

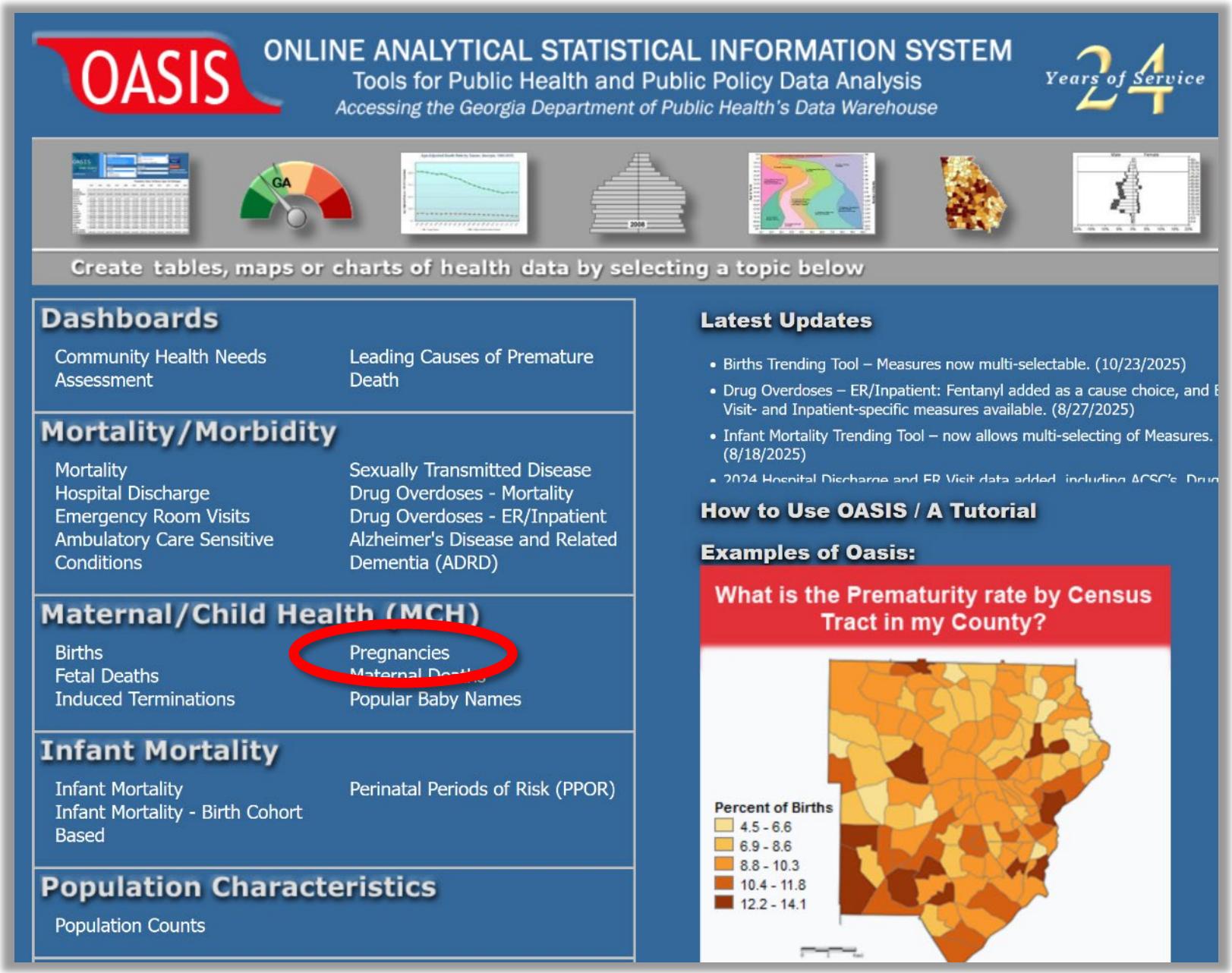
1. What is the teen pregnancy rate for each county?
2. How are low birthweight births distributed within DeKalb county?
3. What age group has the most ER visits due to falls?
4. What is the trend of drug overdoses and opioids?
5. What are the significant causes of death in Muscogee county?
6. What are the top causes of premature death in GA and how are they distributed among age, sex and race?

Each question will be answered using a different tool of OASIS:

a) Web Query Tool
b) Mapping Tool
c) Animated Charting Tool
d) Trending Tool
e) Community Health Needs Assessment & Leading Causes of Premature Death Dashboards.

1. Table: Age-specific Pregnancy Rates, 15-17 Years of Age, All Counties.

Choose Pregnancies below:



Referrer page – choose Get Table…

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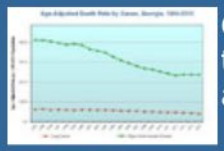
Get Table

Click icon to create Animated Pyramid Charts that show the age / race / sex distribution of counts or percentages, including associated data tables.

Get Animated Pyramids

Click icon to create Maps by County, Region, or sub-county areas such as Census Tract.

Get Map



Click icon to create Line Charts to show trends of indicators over time; including associated data tables.

Get Trends

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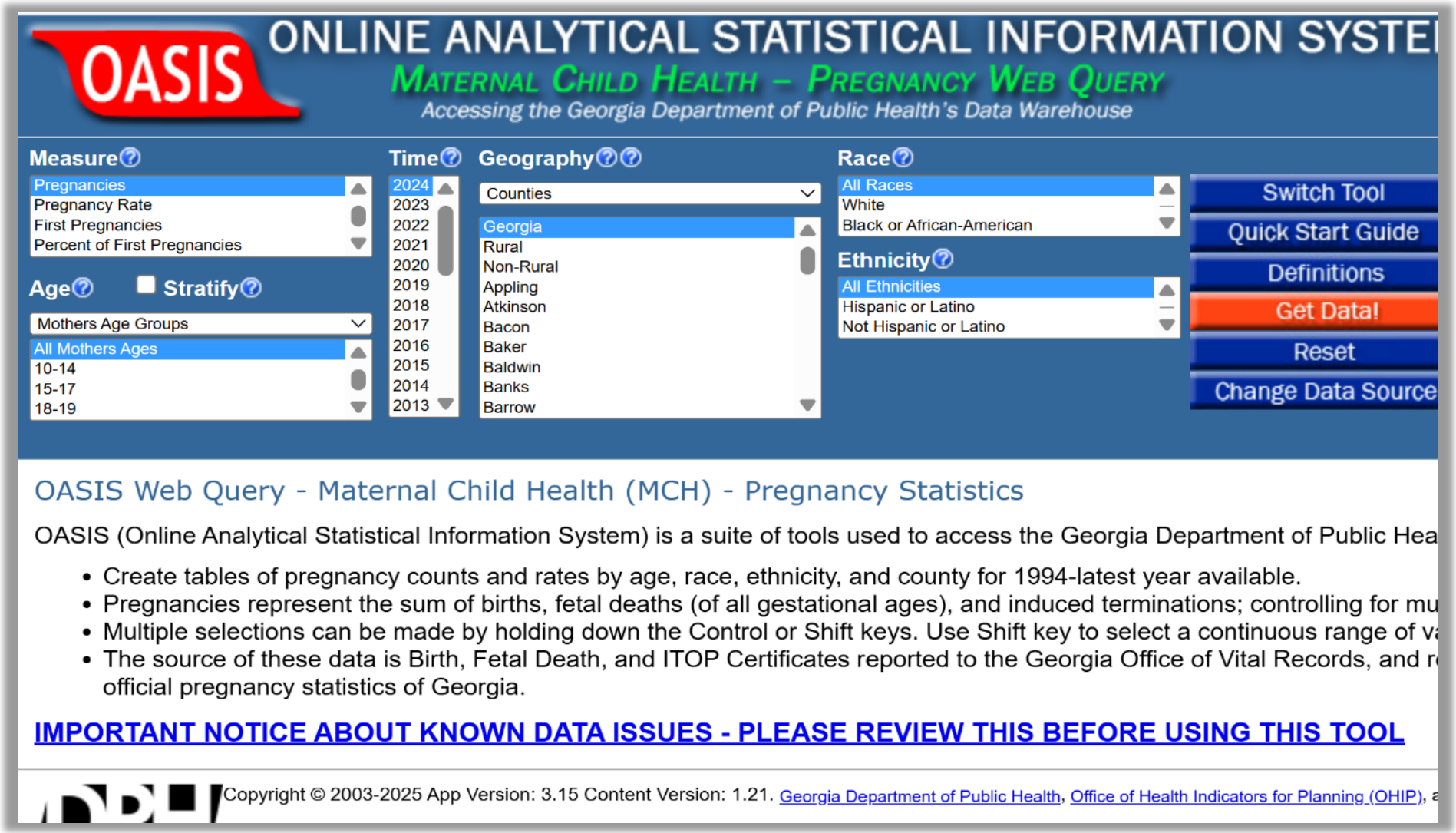
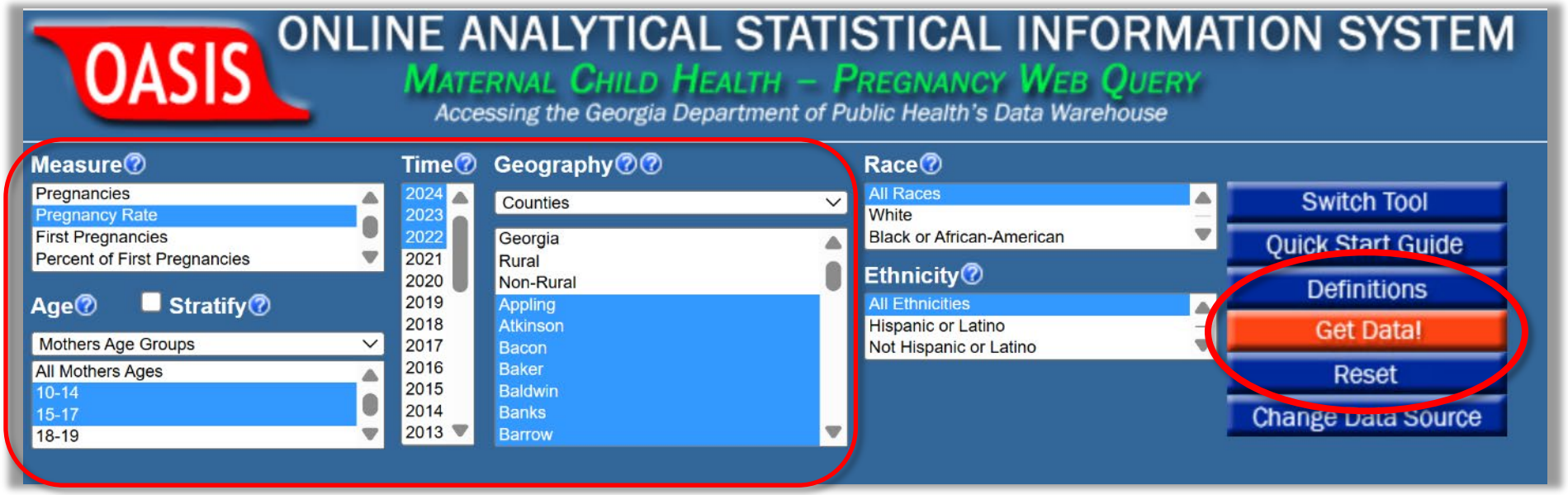
The Pregnancies Web Query



Make the following choices under **Measure**, **Age**, **Time**, and **Geography**…



…then click Get Data!

You can use ctrl or shift or hold your mouse button to make multiple selections.

This is what the table looks like. Hovering over a county name will show a small map highlighting the location of the county.

The table can be saved as an xlsx file with the **Save Data** button.

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MATERNAL CHILD HEALTH – PREGNANCY WEB QUERY

Accessing the Georgia Department of Public Health's Data Warehouse

Measure: Pregnancies; **Pregnancy Rate**; First Pregnancies; Percent of First Pregnancies

Time: 2024, 2023, 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013

Geography: Counties — Georgia; Rural; Non-Rural; Appling; Atkinson; Bacon; Baker; Baldwin; Banks; Barrow

Race: All Races; White; Black or African-American

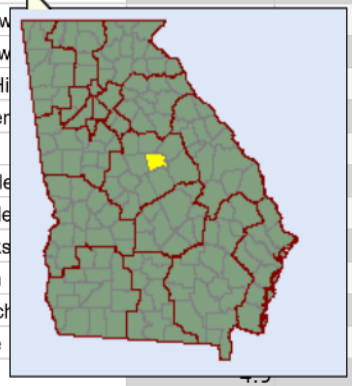
Ethnicity: All Ethnicities; Hispanic or Latino; Not Hispanic or Latino

Age: Stratify — Mothers Age Groups — All Mothers Ages; 10-14; 15-17; 18-19

Switch Tool | Quick Start Guide | Definitions | Get Data! | Reset | Change Data Source | Save Data

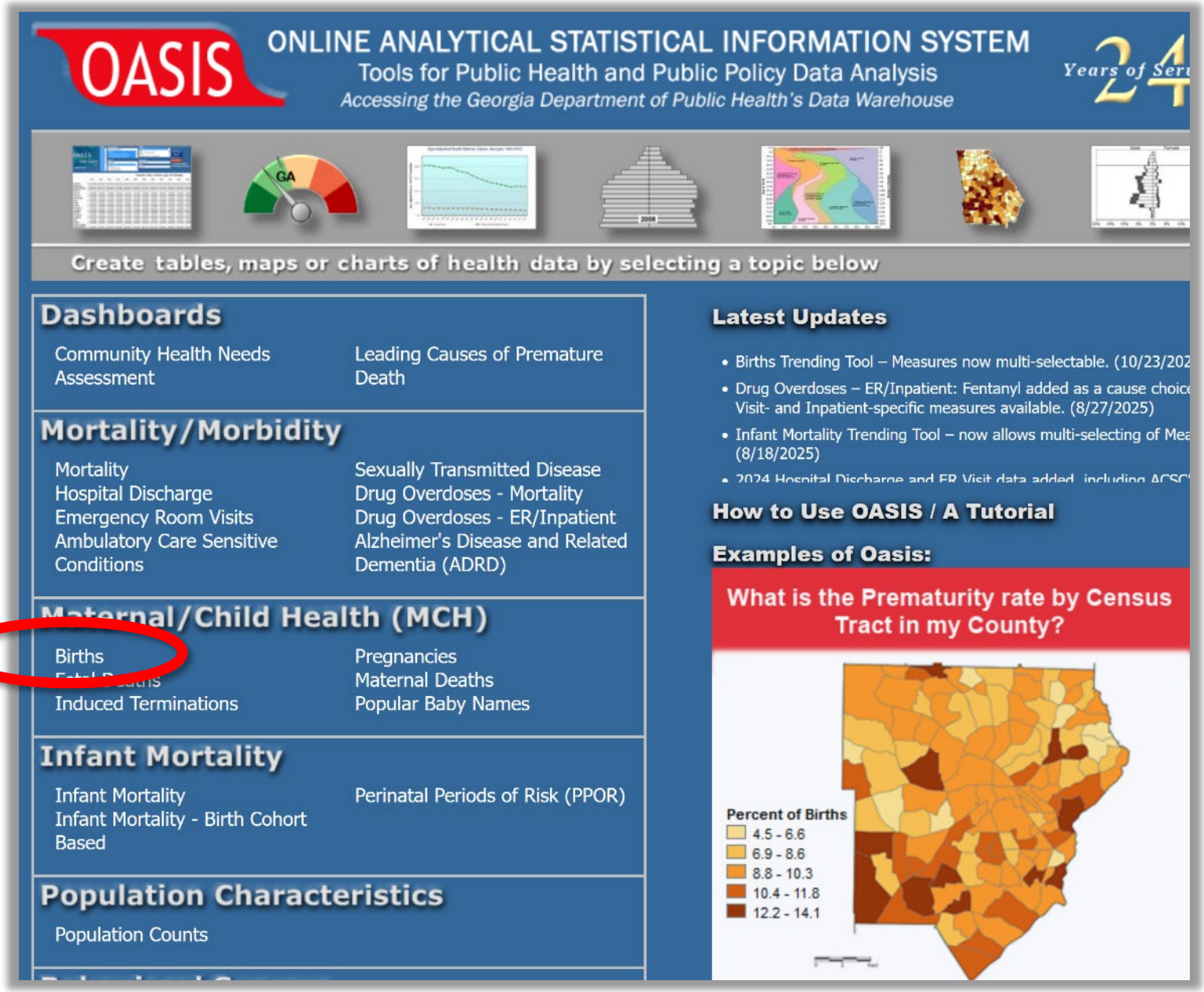
Pregnancy Rate by Residence, 10-17 Years of Age

Geography	2022	2023	2024	Selected Years Total
	Pregnancy Rate	Pregnancy Rate	Pregnancy Rate	Pregnancy Rate
Appling	*	8.0	*	5.0
Atkinson	*	11.2	13.3	11.3
Bacon	*	17.4	*	8.5
Baker	0.0	*	0.0	*
Baldwin	4.9	6.4	4.7	5.3
Banks	*	*	*	2.3
Barrow		3.0	1.9	2.7
Bartow		3.2	4.5	3.7
Ben Hi		6.4	7.6	6.7
Berrien		5.1	*	4.1
Bibb		8.0	6.1	7.2
Bleckle		*	*	5.6
Brantle		*	*	3.1
Brooks		*	8.1	6.3
Bryan		1.5	2.0	1.8
Bulloch		6.4	5.3	5.0
Burke		*	3.7	4.7
Butts		*	*	2.9



2. Map - Spatial Variation WITHIN County: Percentage Low Birthweight.

Choose Births below:



Referrer page – choose Get Map…

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24 Years of Service

Tool Selection: Select the type of output you need

Click icon to create Tables of various statistics and indicators.

Get Table

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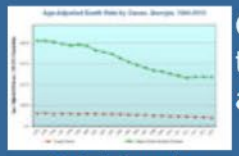
Get Animated Pyramids

Click icon to create Maps by County, Region, or sub-county areas such as Census Tract.

Get Map



Click icon to create Line Charts to show trends of indicators over time; including associated data tables.

Get Trends

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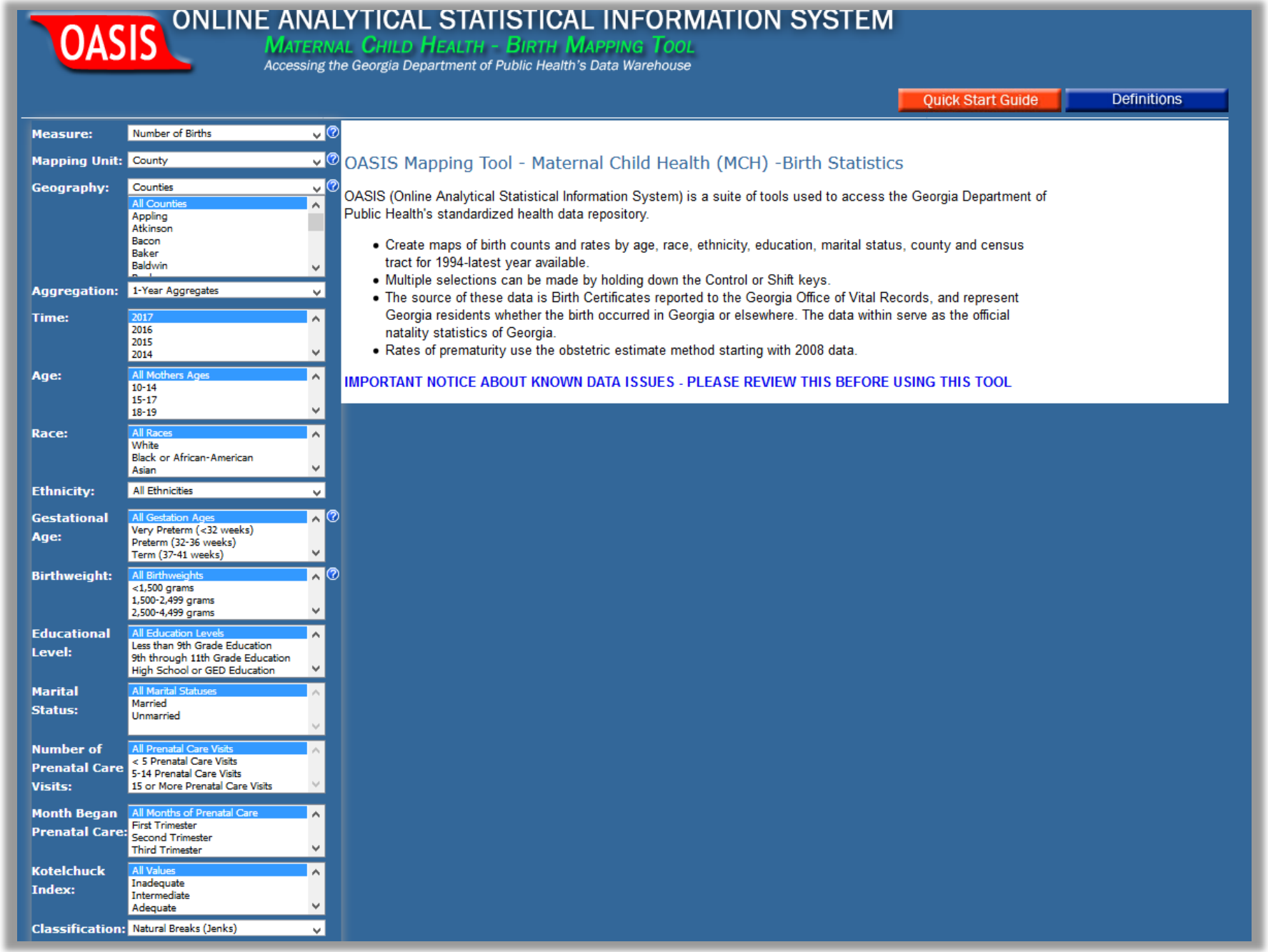
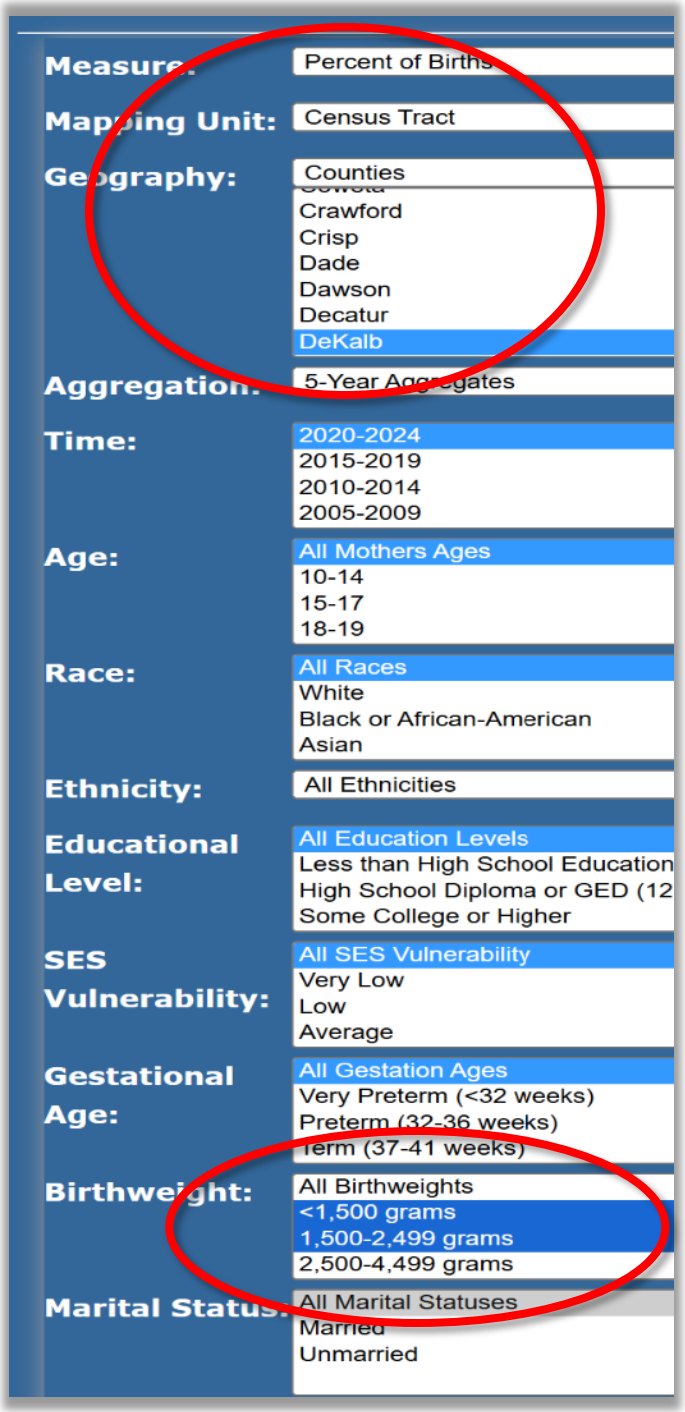
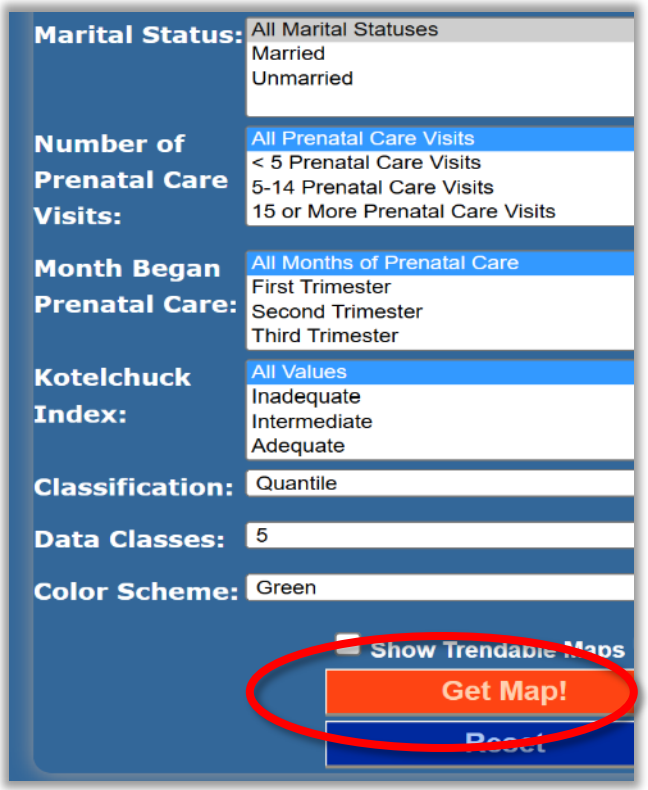
The Births Mapping Tool:



Change Measure to Percent of Births, Mapping Unit to Census Tract, and choose a county.

Select <2,500 grams.

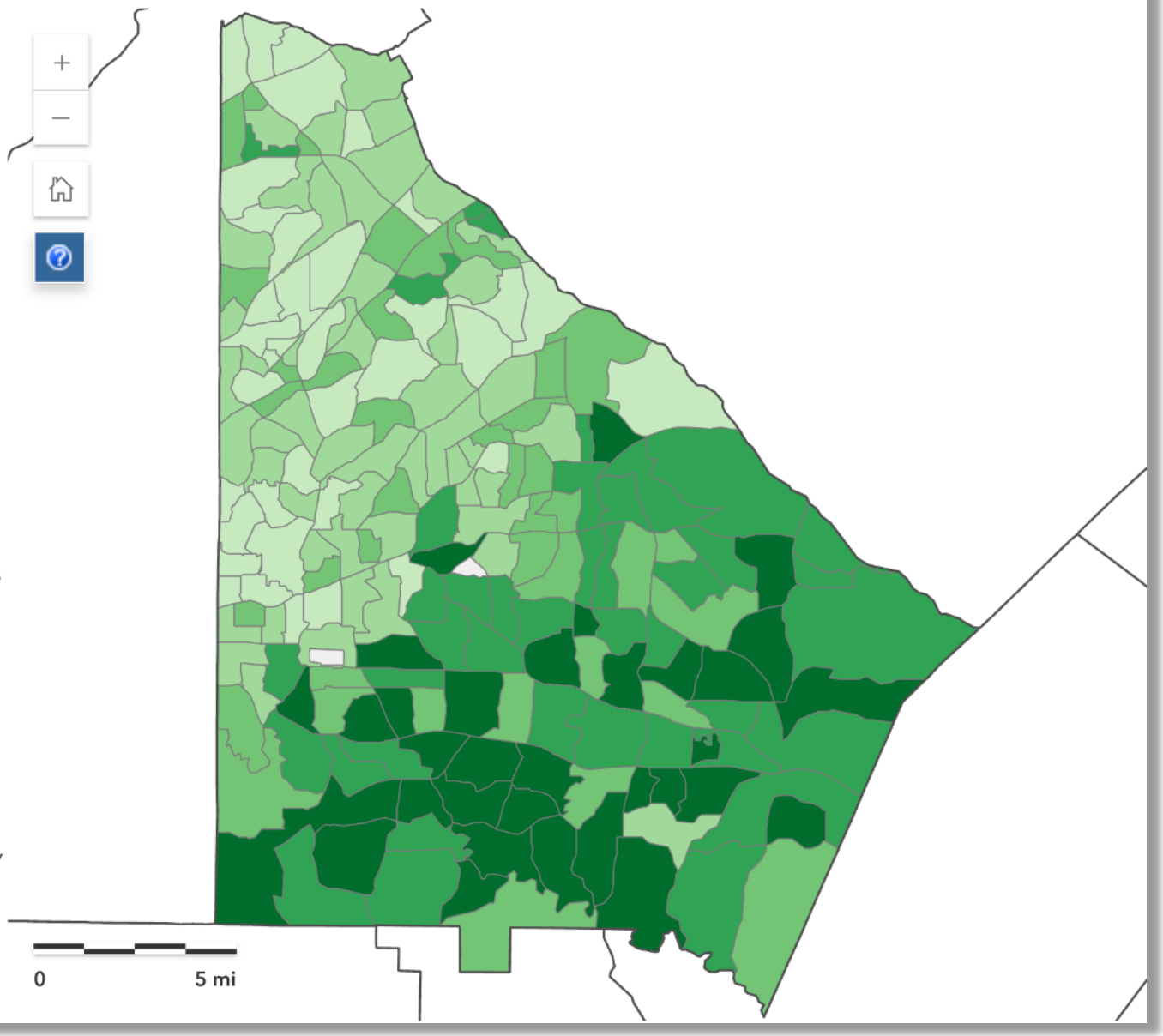




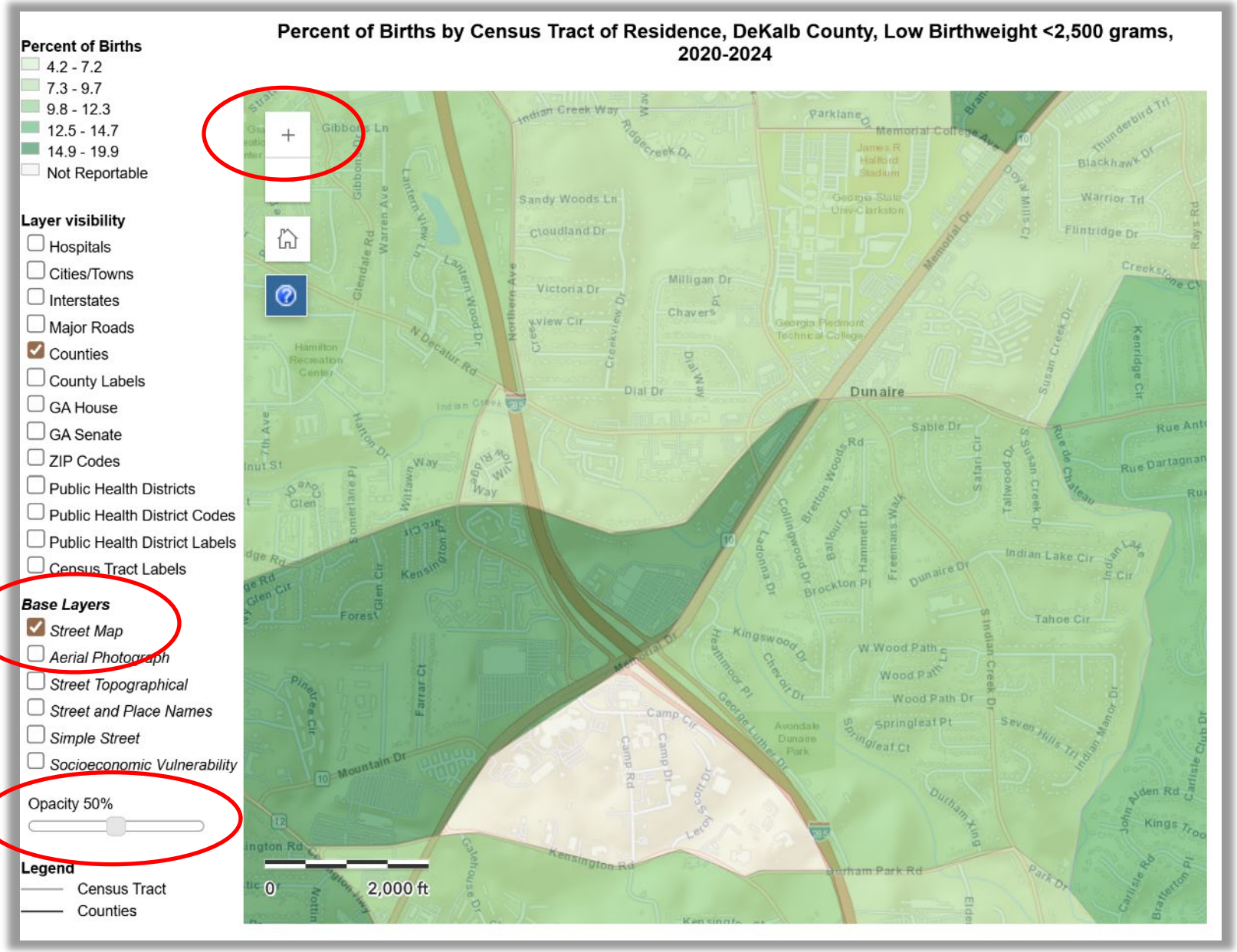
Click Get Map.

Switch Tool | Quick Start Guide | Definitions | Save/Print | Change Data Sou

Percent of Births by Census Tract of Residence, DeKalb County, Low Birthweight <2,500 grams, 2015-2024



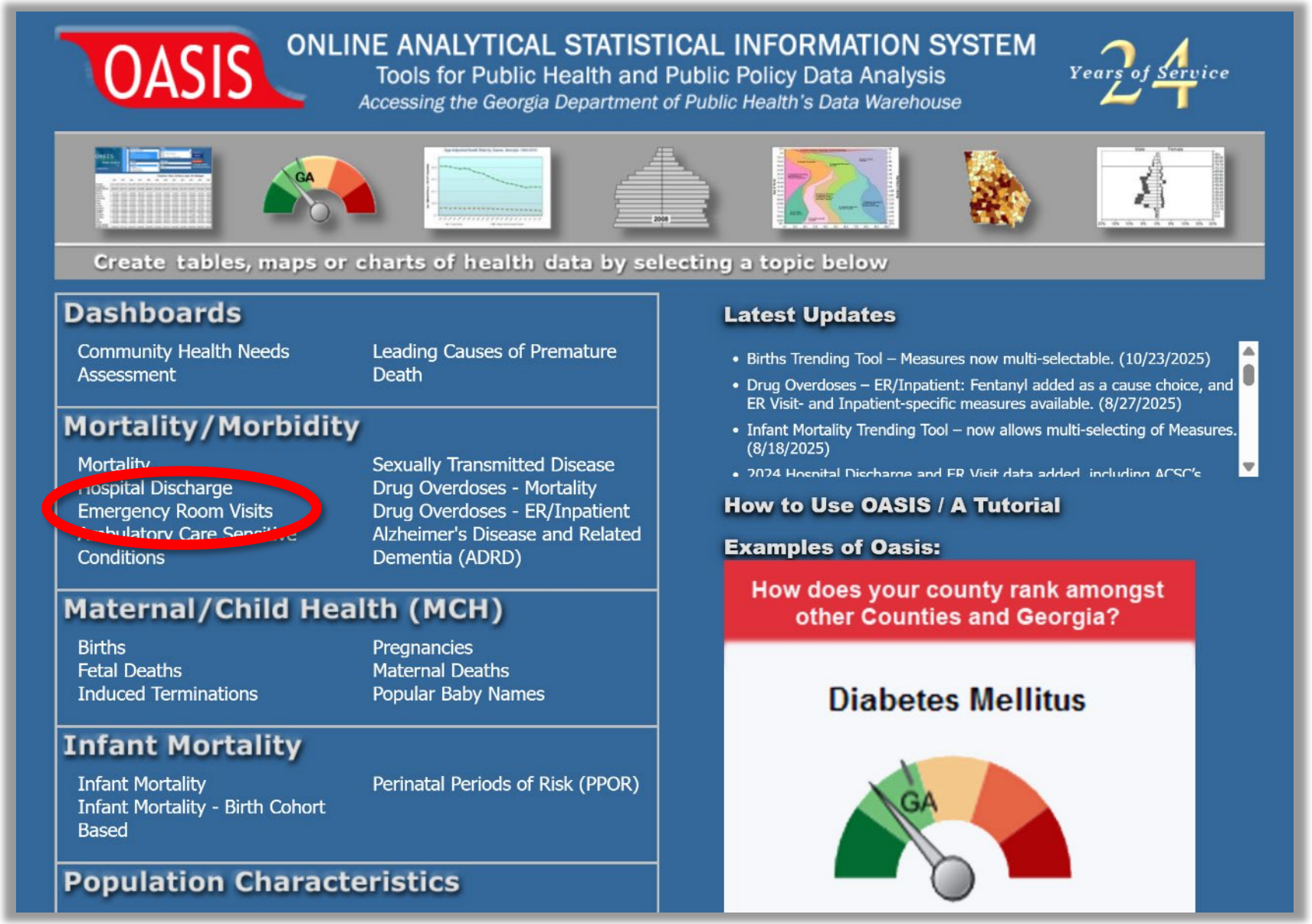
Zoom in, turn on Street Map, and adjust the Opacity slider…



Maps can be saved locally. Other features include creating maps that show trends over time.

3. Charting: What age group has the most ER visits due to falls?

Select Emergency Room Visits below:



Referrer page – Get Animated Pyramids…

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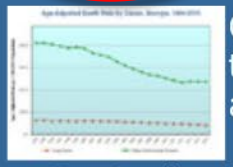

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Get Trends

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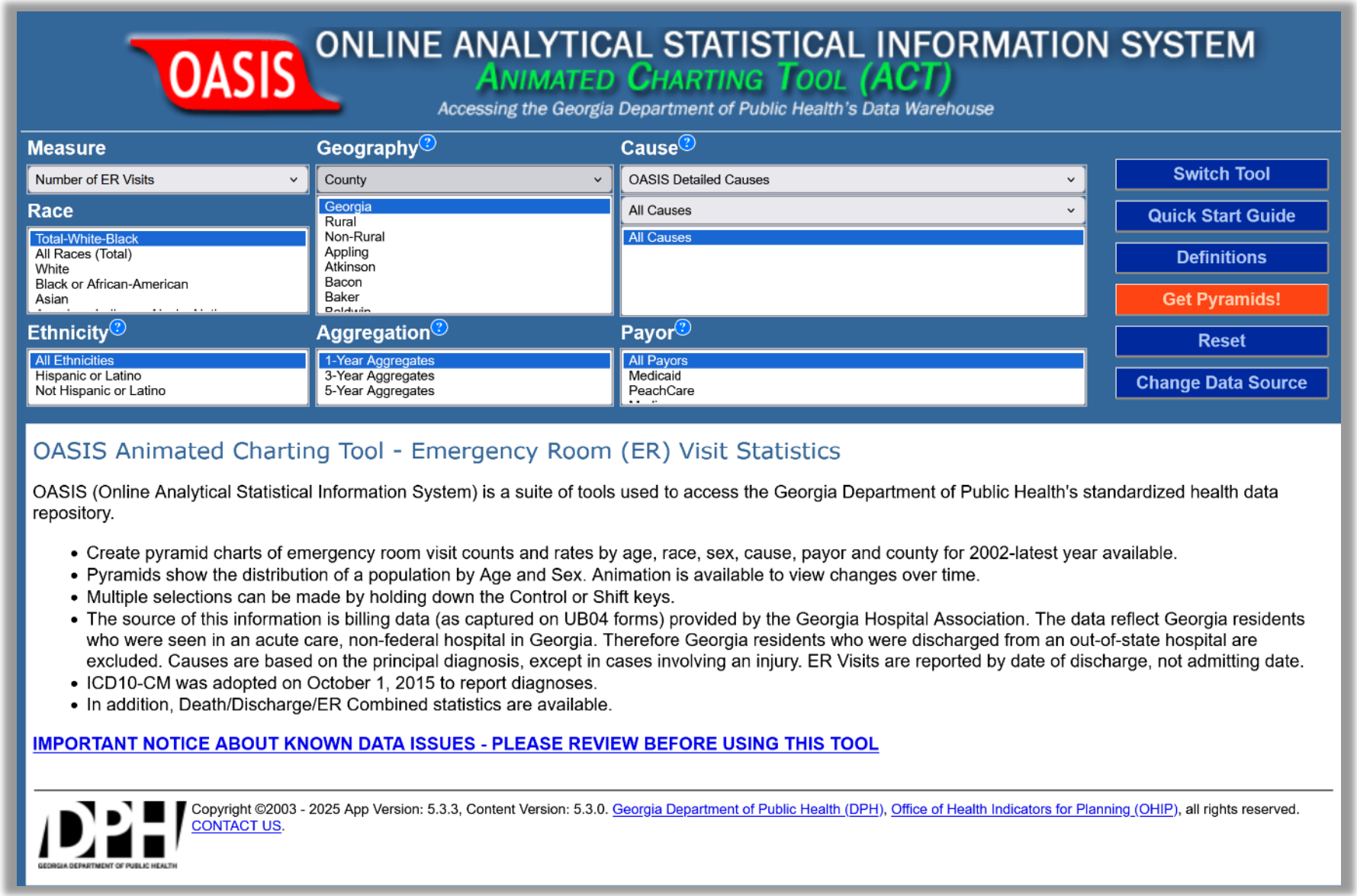
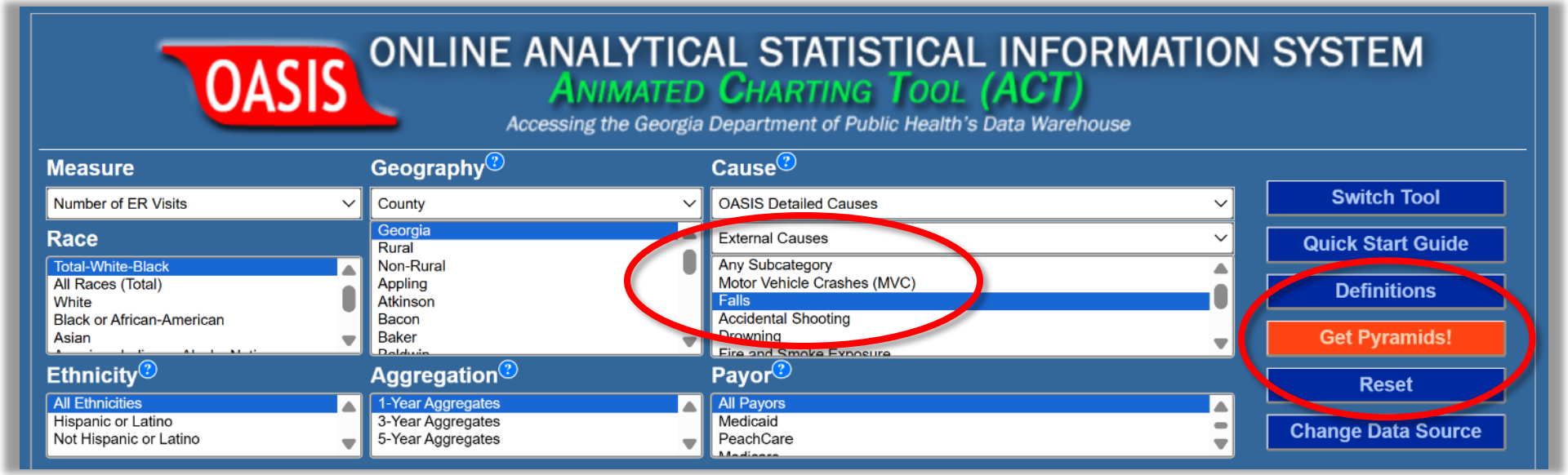
The ER Visits Animated Charting Tool



Change All Causes to External Causes, and select Falls underneath:



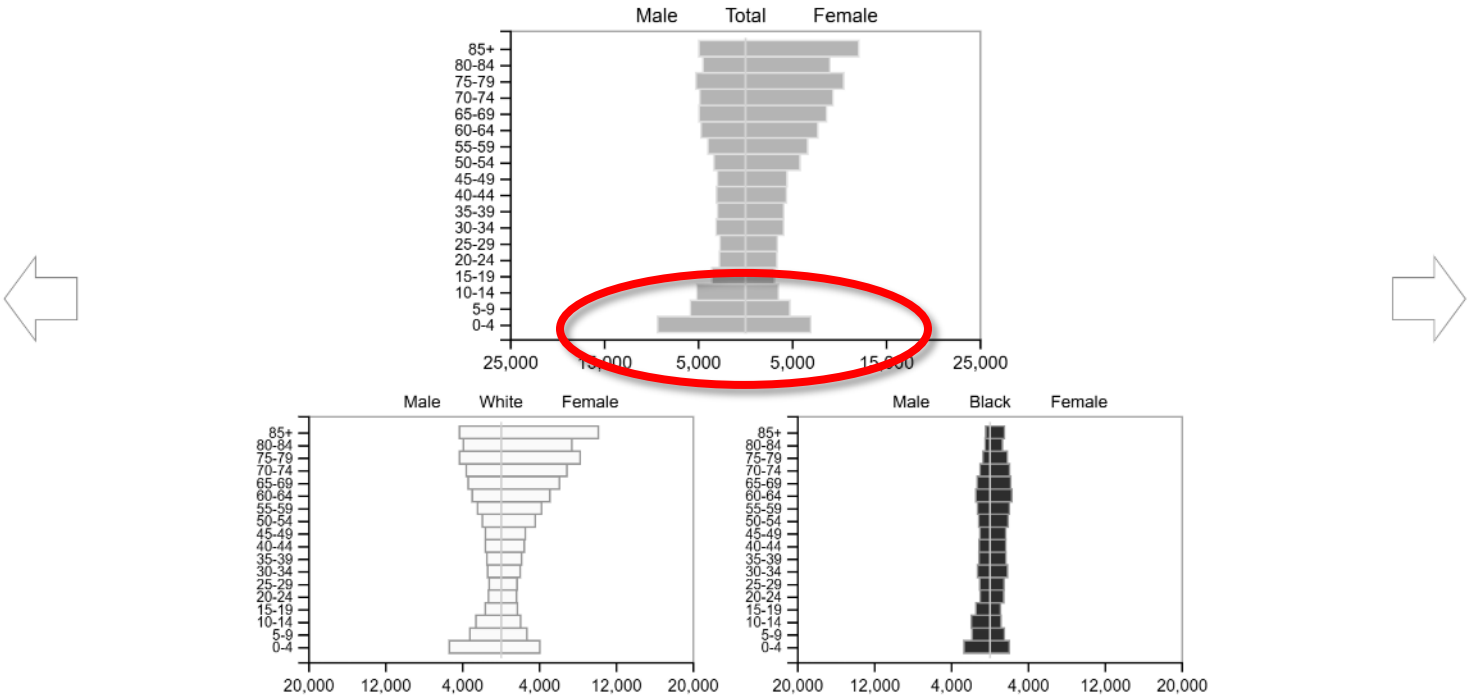
Click Get Pyramids!

Most ER Visits for Falls are among toddlers/young children:

Animate | Back | Forward | Save Image | Save Animation

Number of Emergency Room Visits, Falls, Total, White and Black or African-American

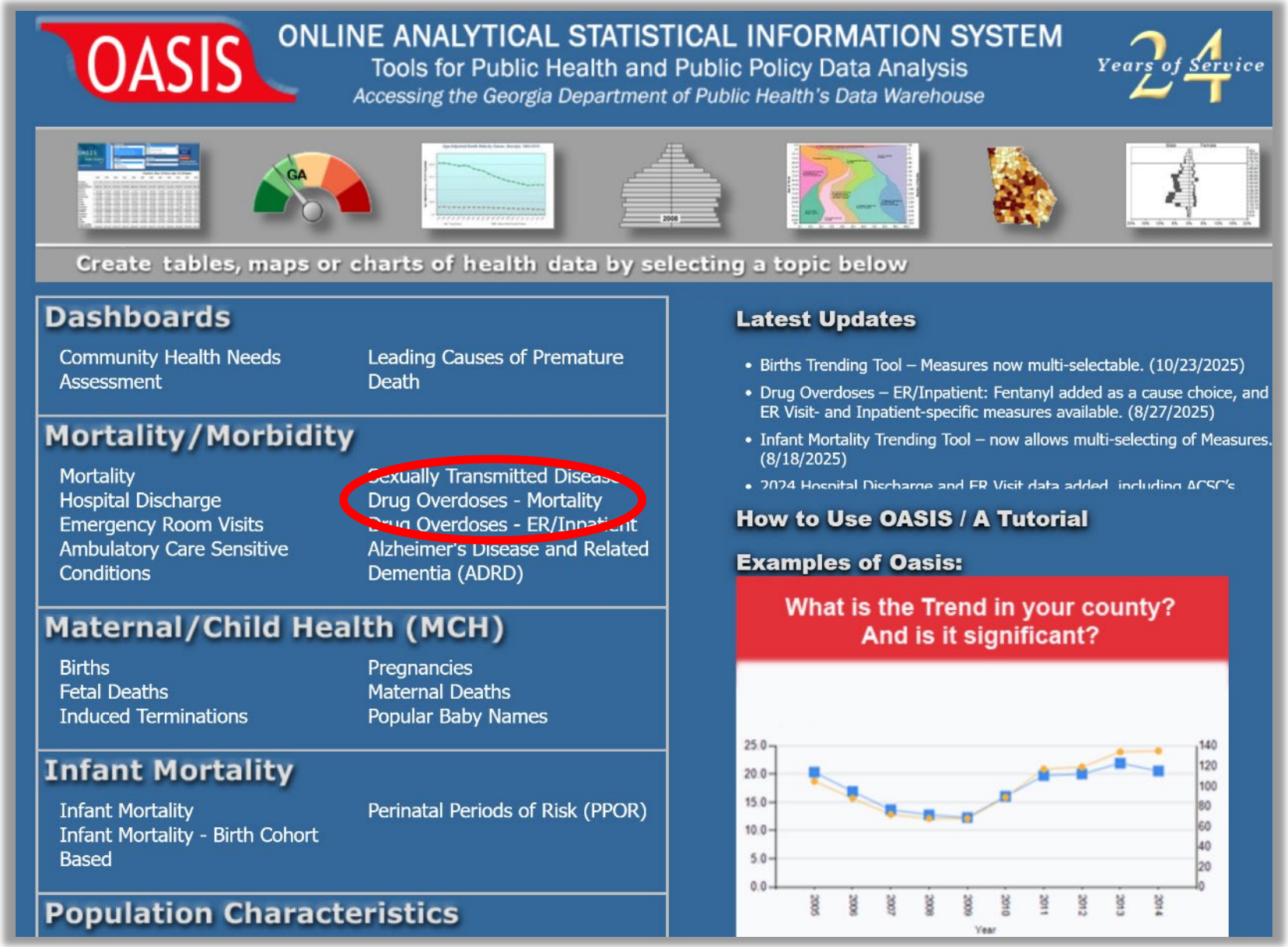
Georgia, 2024



Year	Age in Years	Total Males	Total Females	Total	White Males	White Females	Black Males	Black Females	White and Black
2024	0-4	9,364	6,940	16,304	5,388	4,028	2,720	2,002	14,138
2024	5-9	5,869	4,716	10,585	3,242	2,680	1,882	1,492	9,296
2024	10-14	5,177	3,495	8,672	2,615	2,026	1,948	1,127	7,716
2024	15-19	3,581	3,081	6,662	1,655	1,687	1,468	1,069	5,879
2024	20-24	2,780	3,329	6,109	1,320	1,608	1,022	1,410	5,360
2024	25-29	2,726	3,387	6,113	1,235	1,646	1,083	1,442	5,406
2024	30-34	3,122	4,049	7,171	1,397	1,977	1,300	1,805	6,479

Both the chart and the data are shown, and both can be saved locally.

4. Trending Tool: What is the Trend of Drug Overdoses, and Opioids specifically? Choose *Drug Overdoses-Mortality* below:



Referrer Page – Get Trends:

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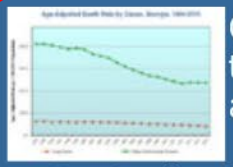

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Get Trends

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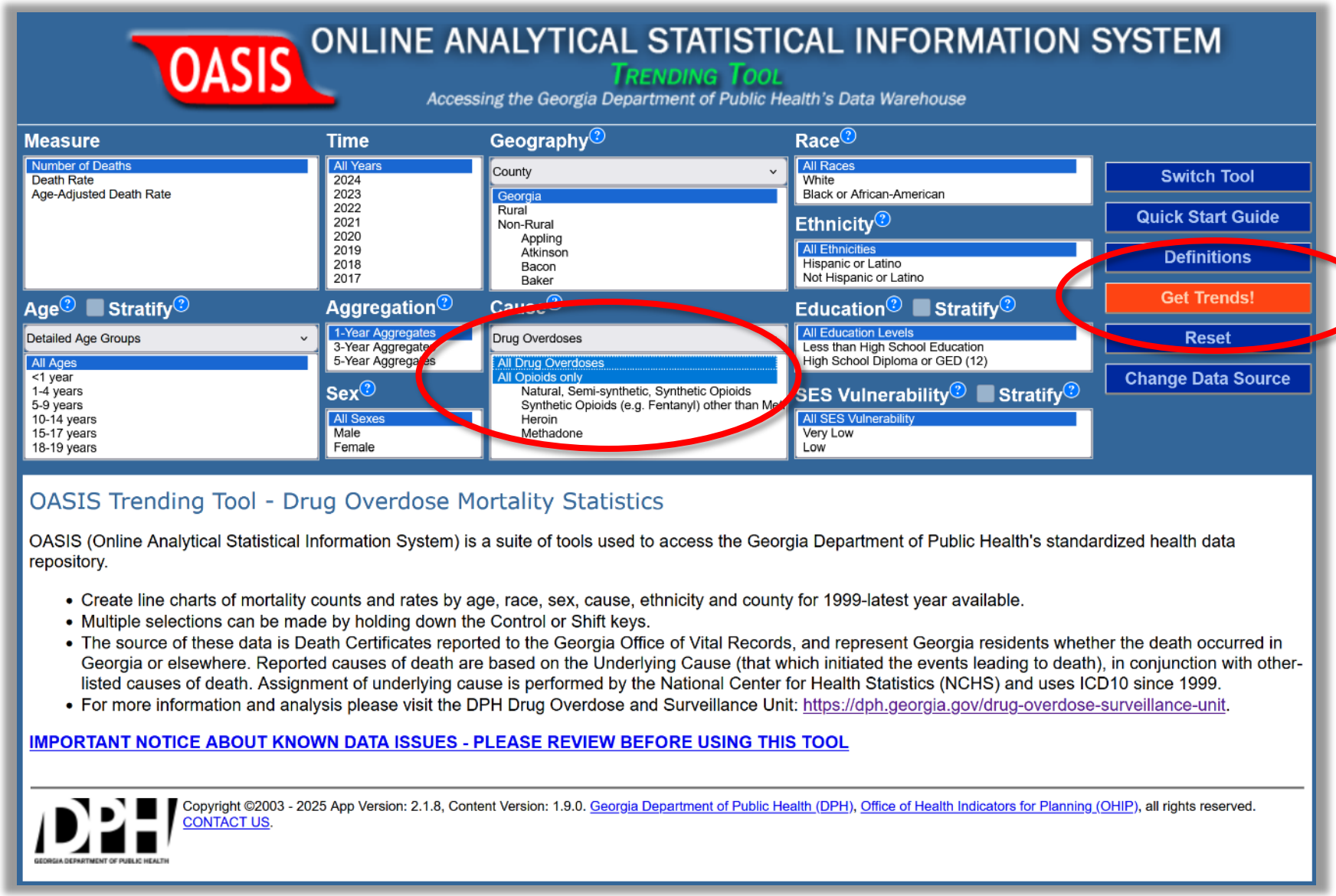
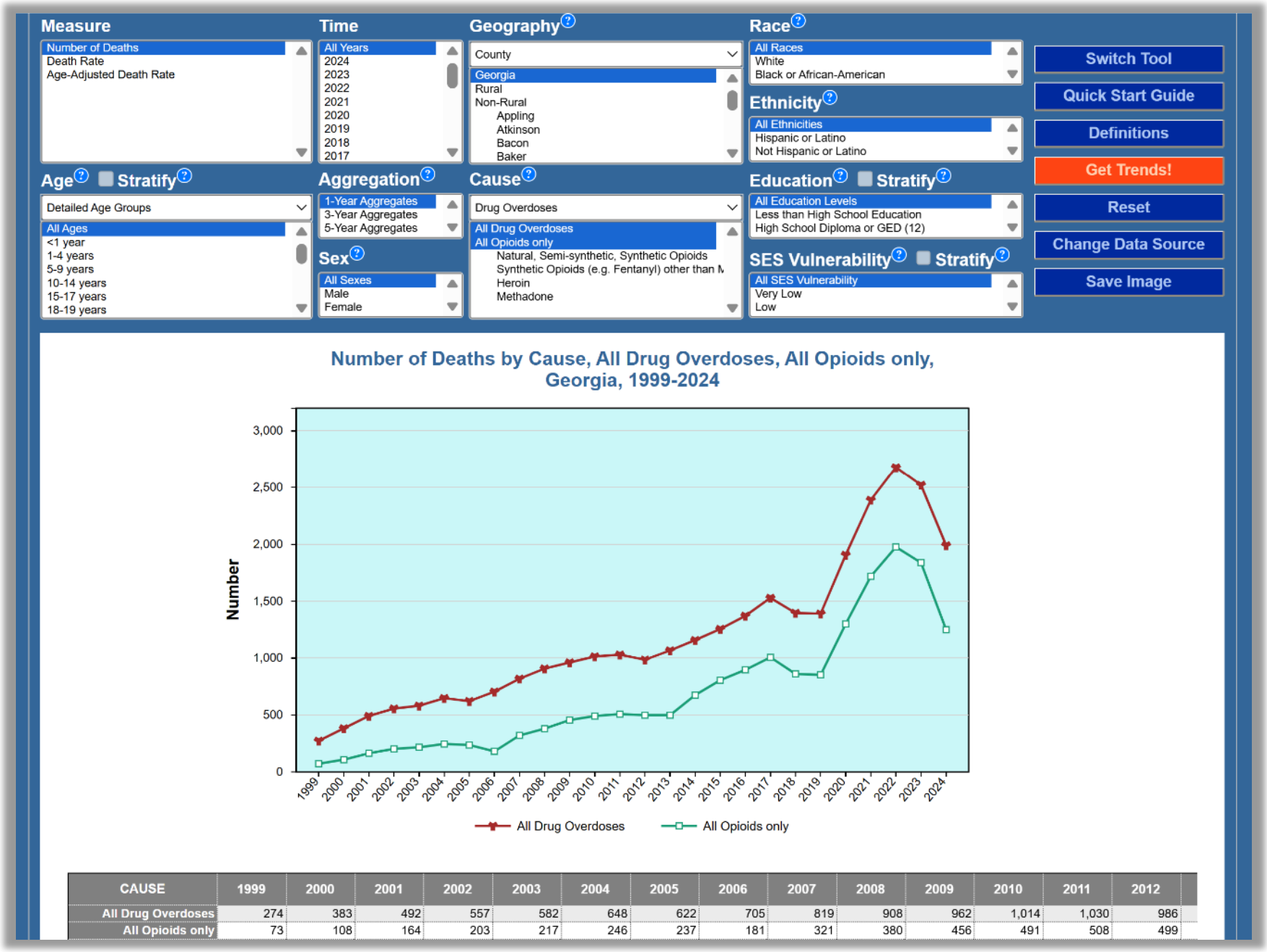
Under “Cause”… choose the two shown, then Get Trends!

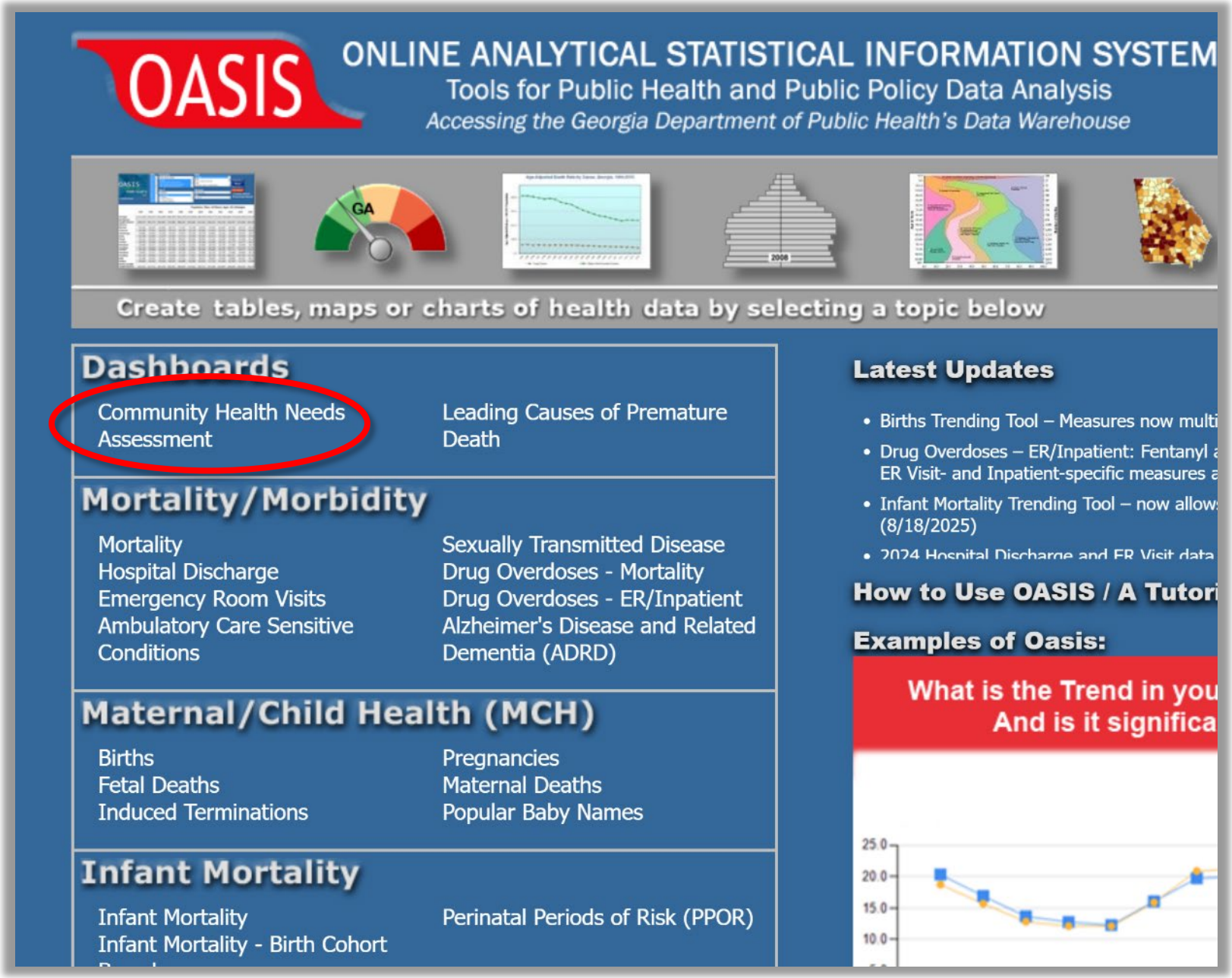




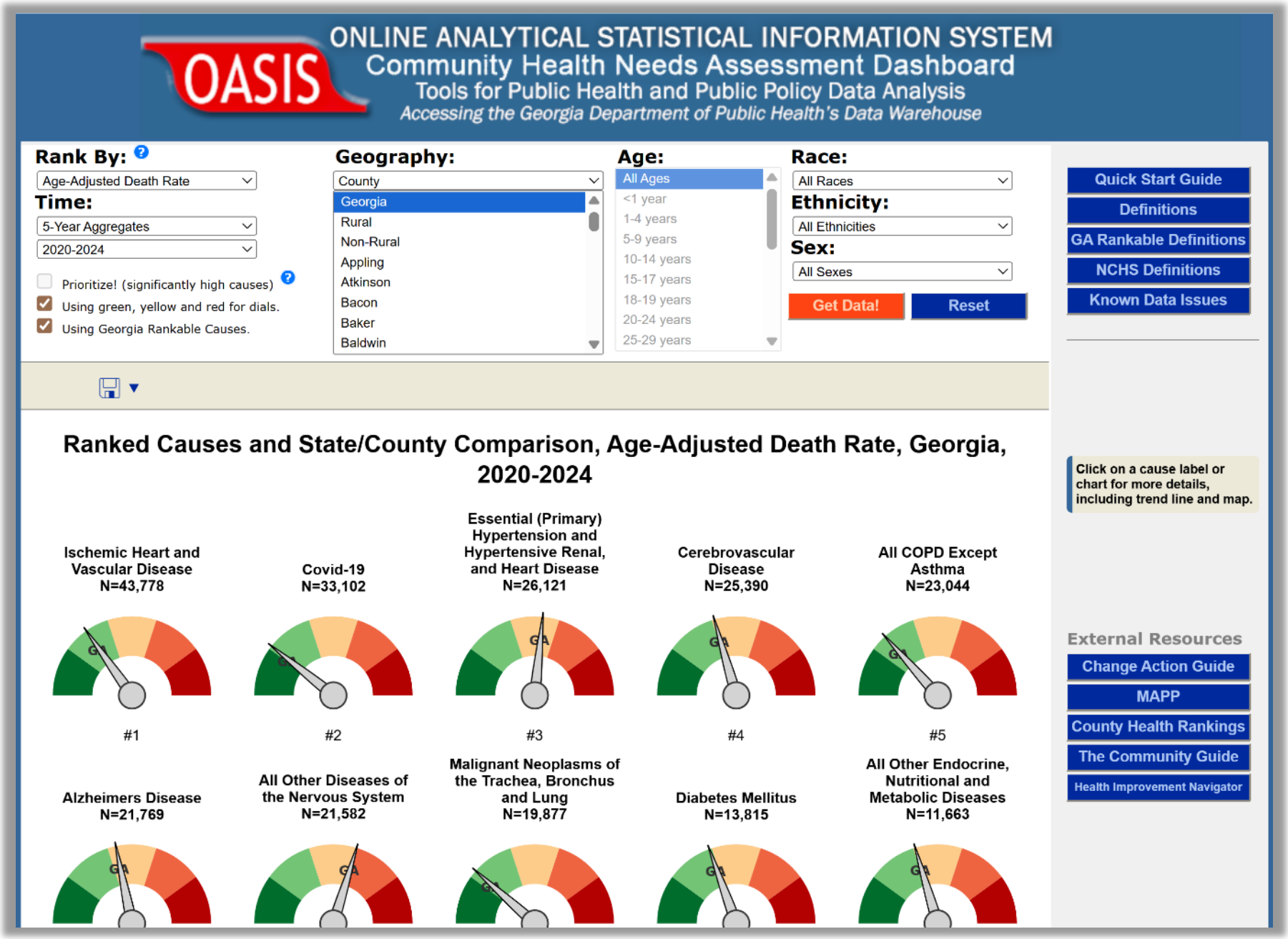
CAUSE	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All Drug Overdoses	274	383	492	557	582	648	622	705	819	908	962	1,014	1,030	986
All Opioids only	73	108	164	203	217	246	237	181	321	380	456	491	508	499

Both the chart and the data are shown, and both can be saved locally.

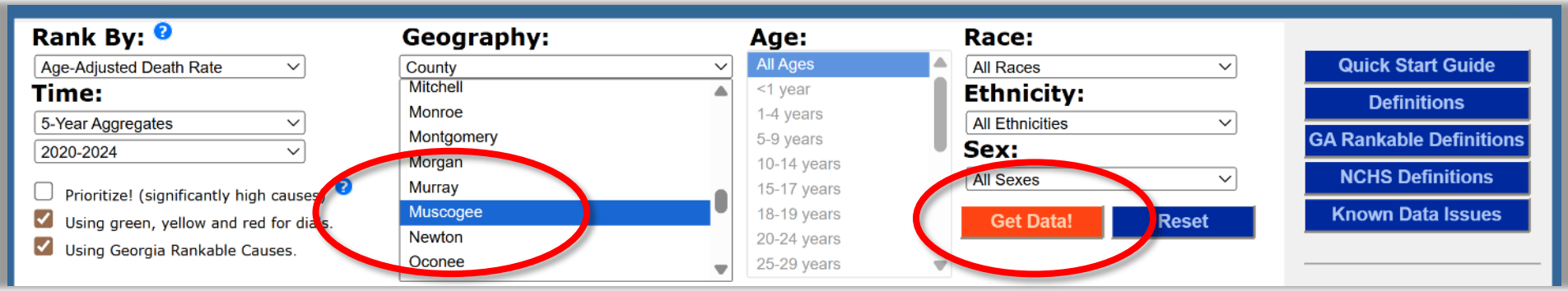
5. Community Health Needs Assessment – Ranked Cause Report for Muscogee County.



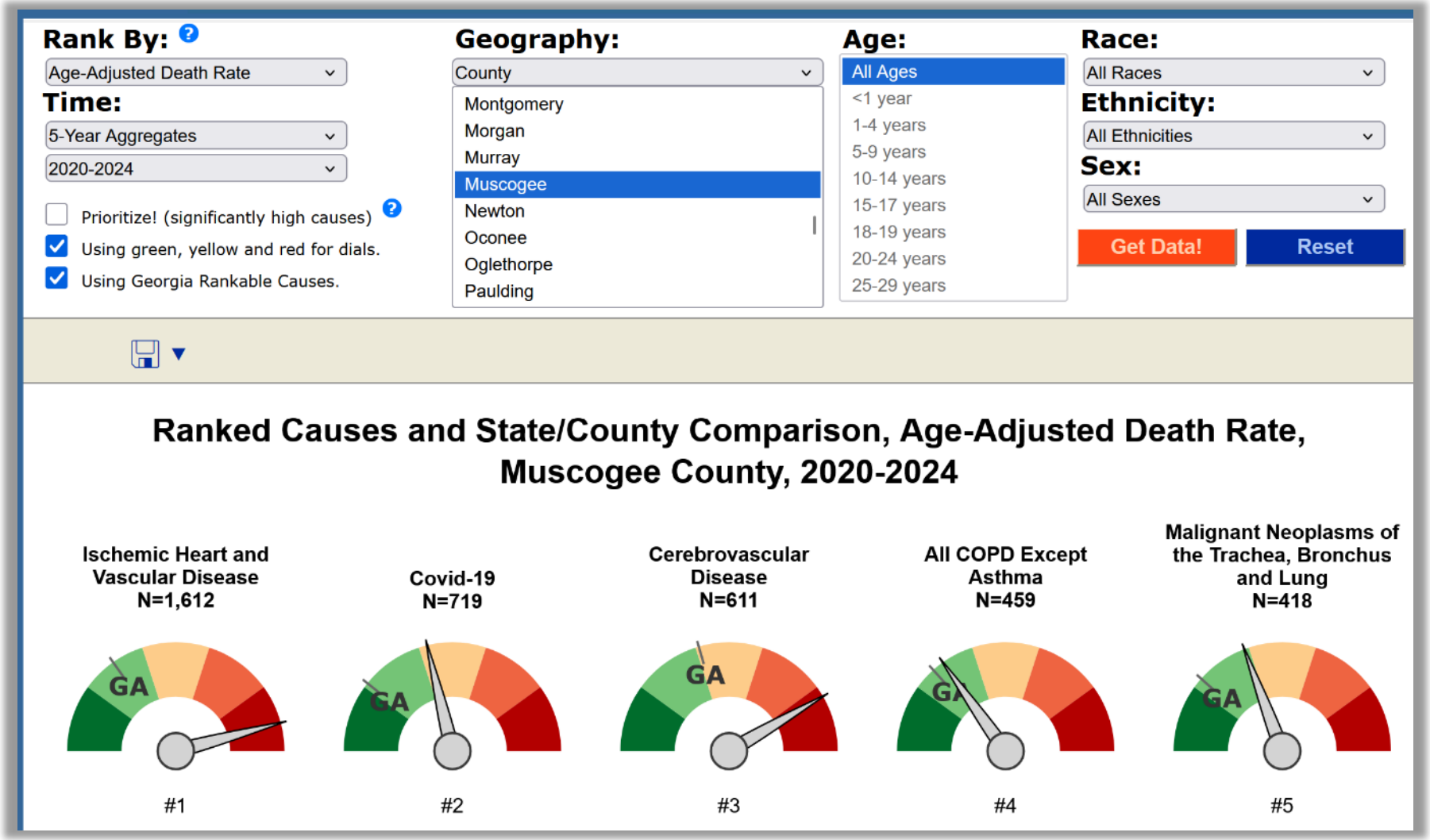
Initial Dashboard page shows Georgia as a whole:



Choose a county, and Get Data!

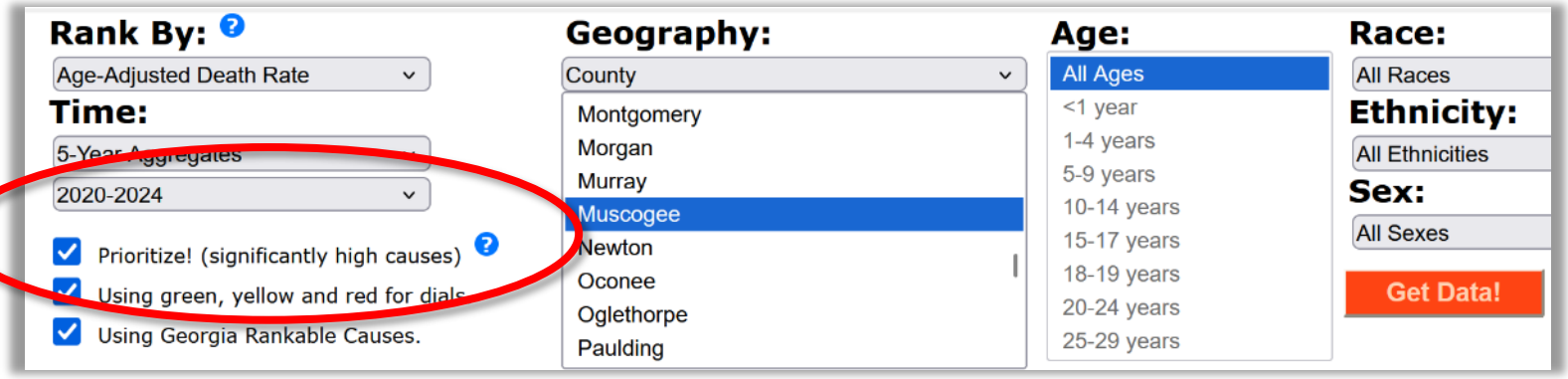


The top 15 causes of mortality and how they compare to the state and other counties will be shown. Top 5 below:

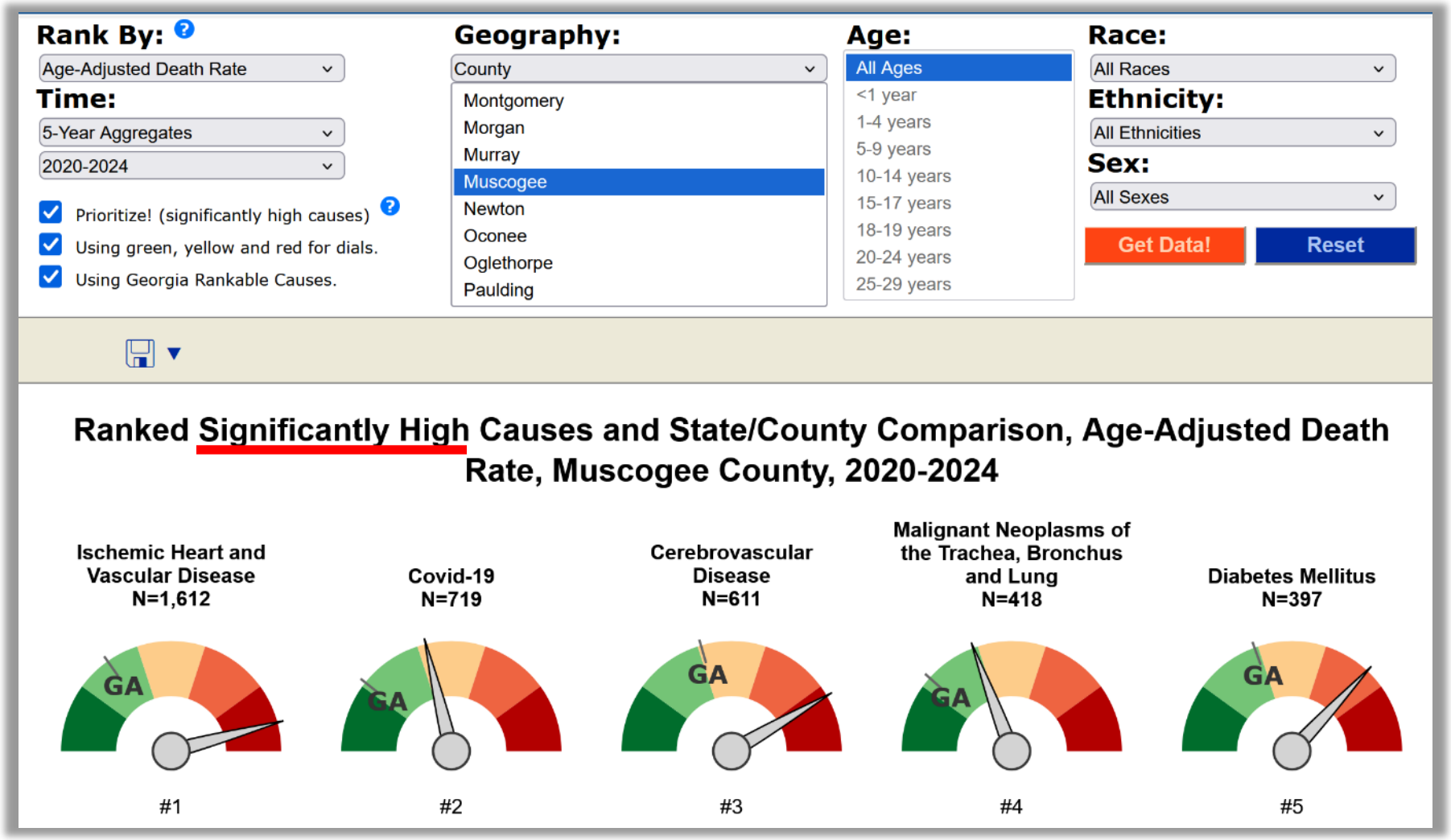


Make note of causes #4 and #5….

This time, check the Prioritize! Box and Get Data!….



"Prioritize" will change the output from the top 15 causes,
to <u>only the top causes that occur significantly higher than expected</u>
as compared to the state as a whole.



Prioritized: Cause #4 dropped out and is replaced by Lung Cancer, and Diabetes moved up to cause#5!

Comparative Review:

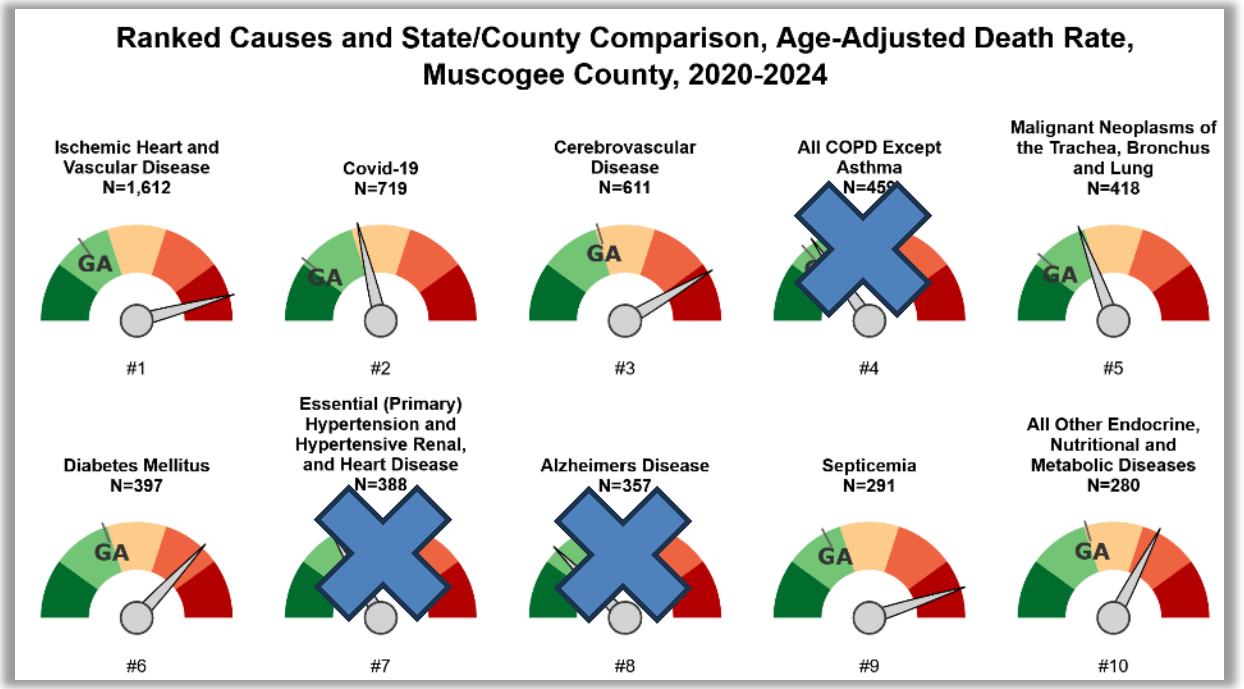
the Top 10 causes

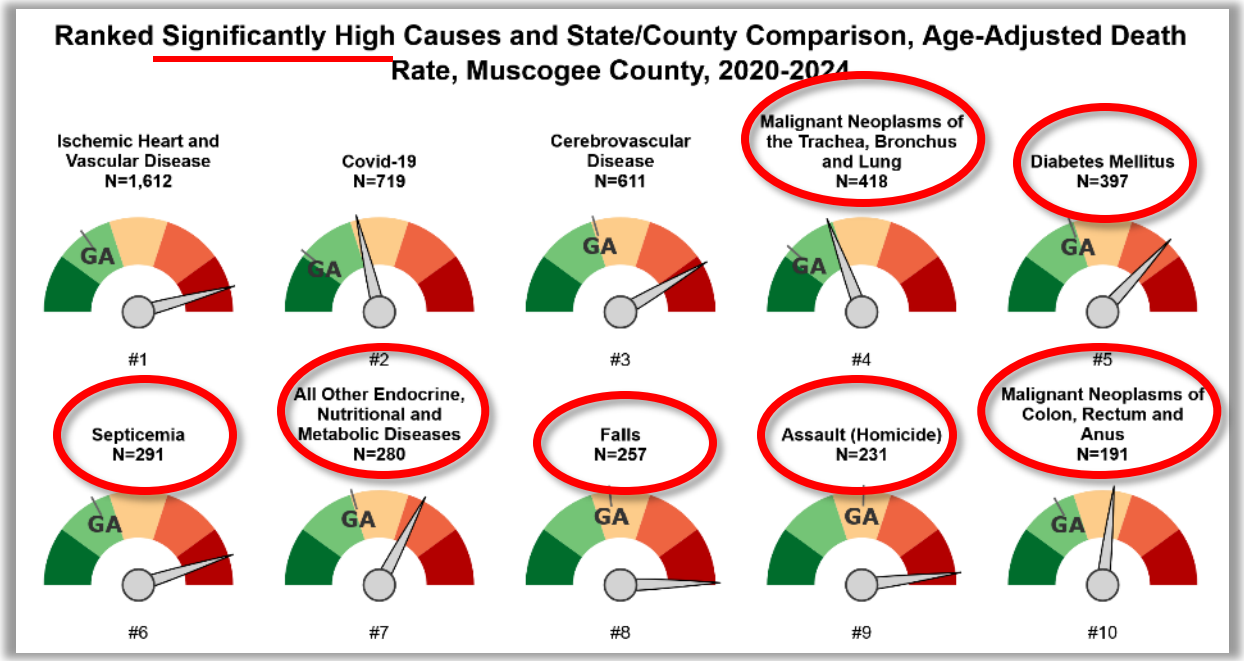
vs

the Top 10 ***Significantly High*** *causes:*

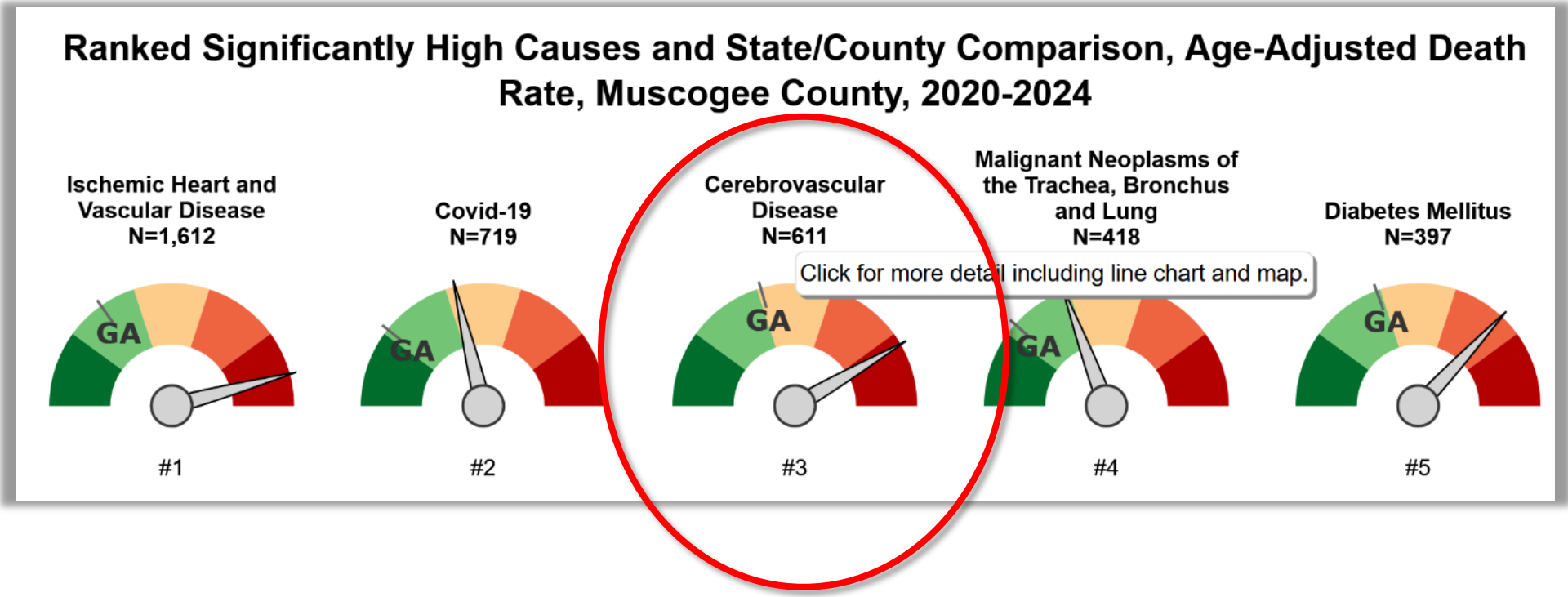
= causes that were not significantly high.

= causes that either changed position or appeared in top 10 once prioritized.





Get a ‘Details Report’ for a specific cause by clicking on it:

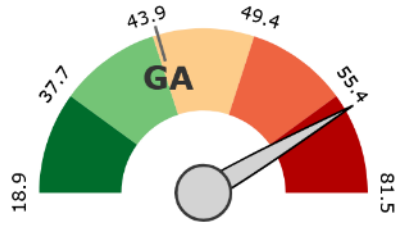


After clicking on the dial, a page will appear that shows detailed information about that cause, divided into 3 parts (shown in next 3 slides).

A. Details page: How Do We Compare to the State?

Age-Adjusted Death Rate - Cerebrovascular Disease for Muscogee County, 2020-2024

How Do We Compare to the State?

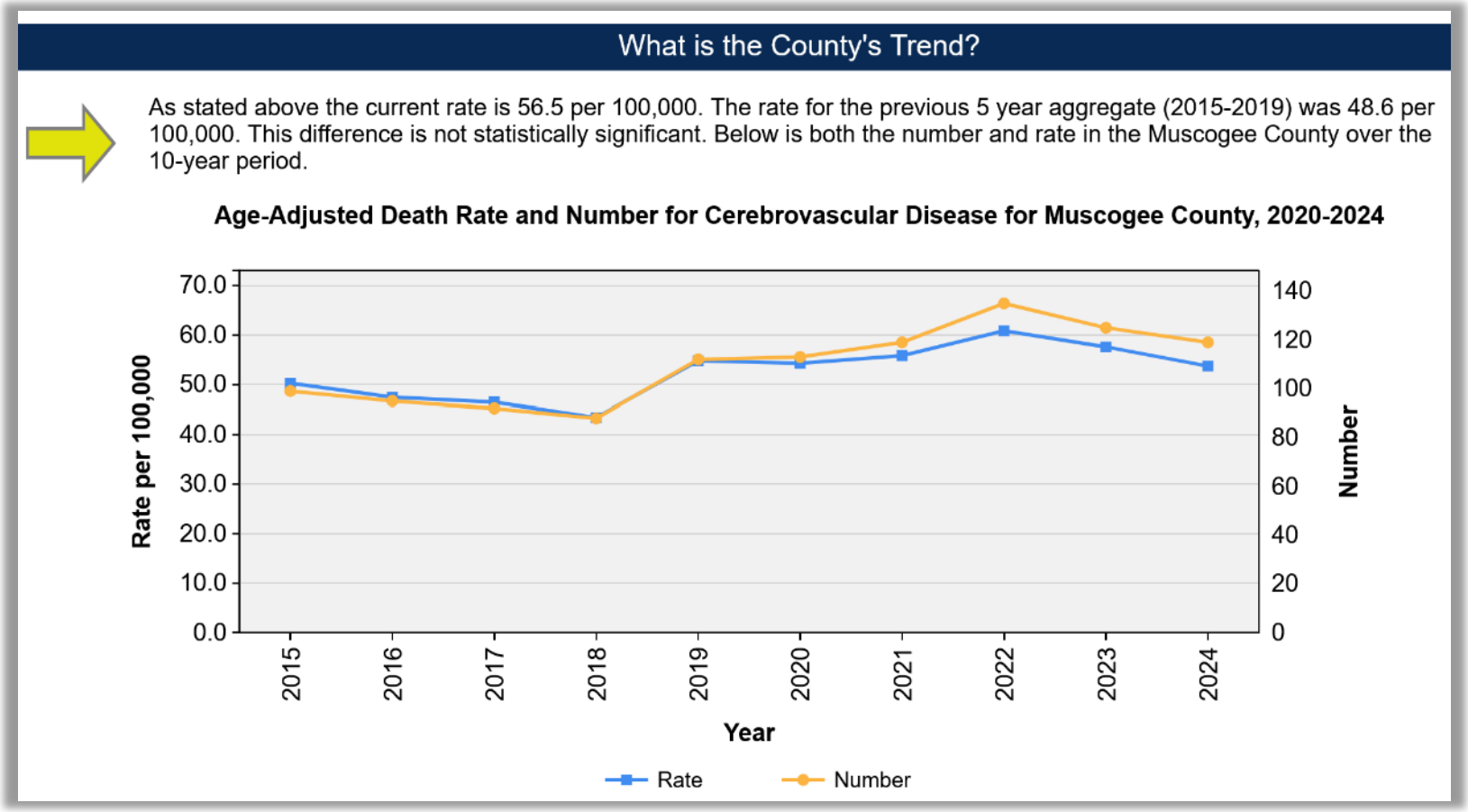


The dial above shows the Georgia Age-Adjusted Death Rate to be 44.0 per 100,000. The Age-Adjusted Death Rate for Muscogee County is 56.5 per 100,000. Additional values on the gauge represent percentiles from the lowest county rate to the highest county rate. The table shows the top 10 causes in Muscogee County, and how each compare in rank to the same causes for the State.

County Comparison with Georgia

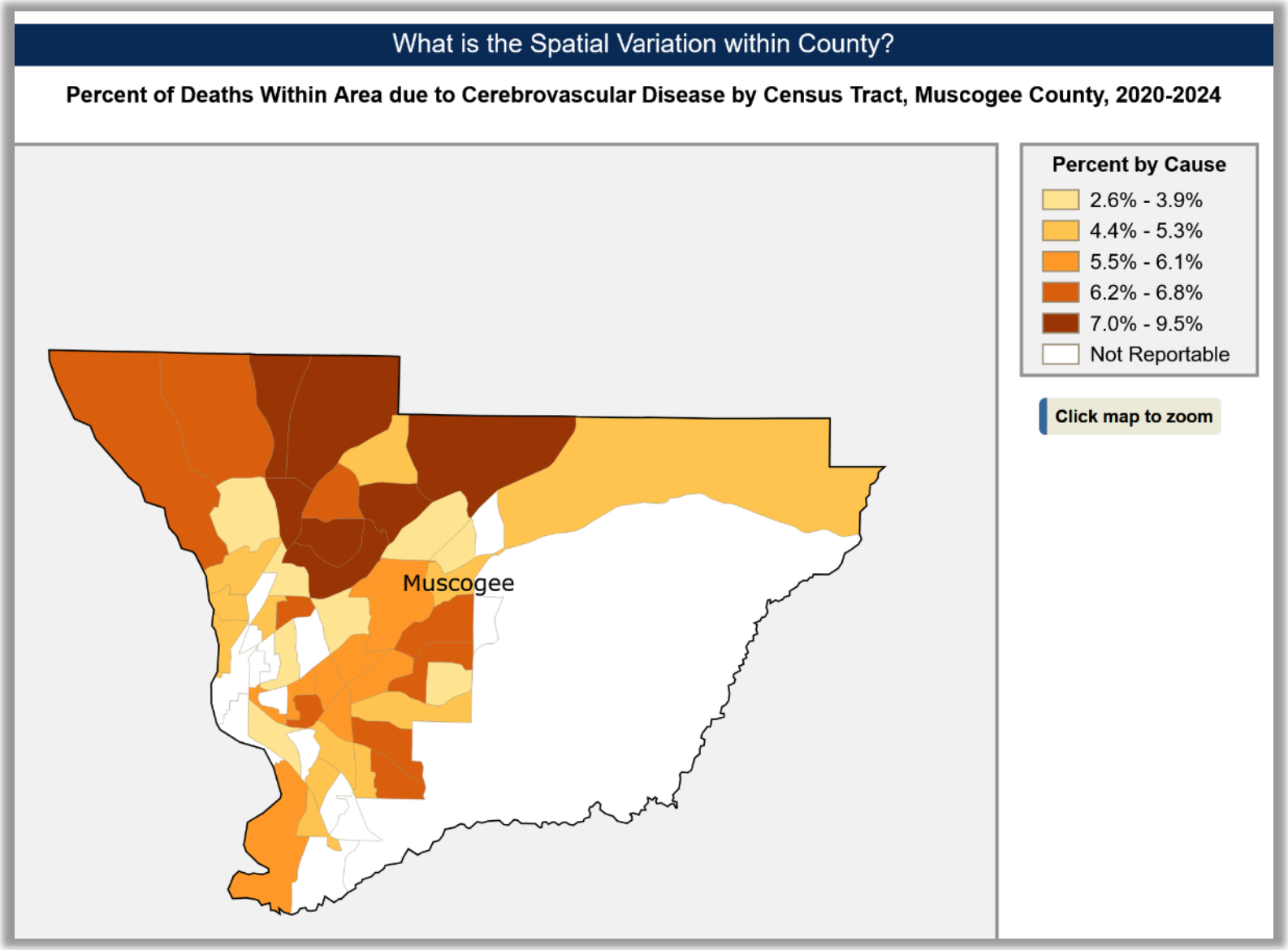
Cause	Selected Geography Rank	Georgia Rank
Ischemic Heart and Vascular Disease	1	1
Covid-19	2	2
Cerebrovascular Disease	3	4
All COPD Except Asthma	4	5
Malignant Neoplasms of the Trachea, Bronchus and Lung	5	8
Diabetes Mellitus	6	9
Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease	7	3
Alzheimers Disease	8	6
Septicemia	9	15
All Other Endocrine, Nutritional and Metabolic Diseases	10	10

B. Details page: What is the County's Trend?

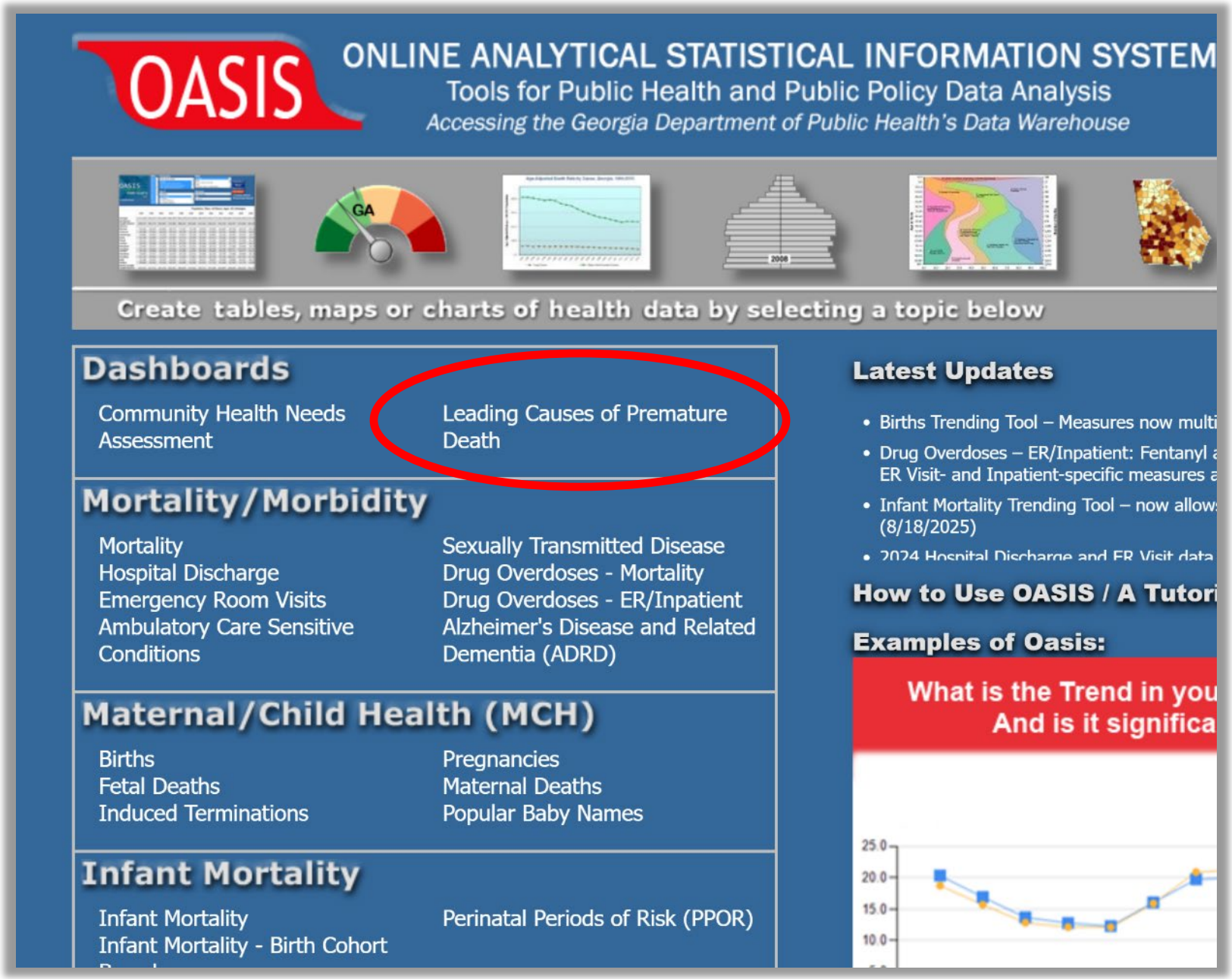


Note that a test of significance is applied automatically to the trend. In this case, there was no significant change over time.

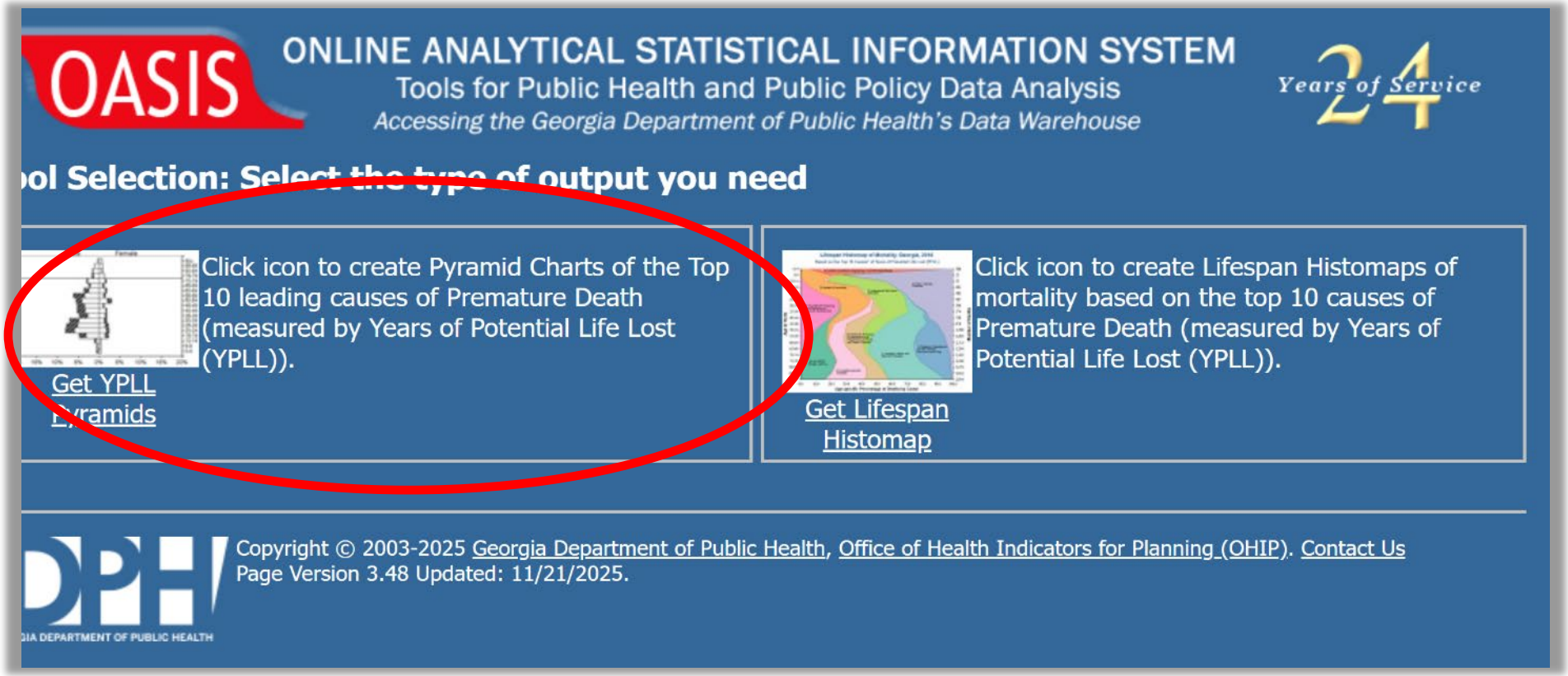
C. Details page: What is the spatial variation within County?



6. Ranked Causes of Premature Death, with charted age/race/sex distributions?



Referrer page – Get YPLL Pyramids…



"YPLL" stands for Years of Potential Life Lost and is a measure of premature death. Each death before age 75 is included, and their years of potential life lost (e.g. a death at age 55 would be 20 YPLL) are summed. Compared with leading causes of death, YPLL directs focus on causes that occur at younger ages. In doing so, ***YPLL highlights causes that are more likely to be attributable to preventable causes and therefore subject to prevention and intervention.***

Click Get Causes!

OASIS ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM

LEADING CAUSES OF PREMATURE DEATH

Accessing the Georgia Department of Public Health's Data Warehouse

Geography **Time**

County

Georgia
Rural
Non-Rural
Appling
Atkinson
Bacon
Baker
Baldwin
Banks
Barrow
Bartow
Ben Hill

2024
2023
2022
2021
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011

☐ Prioritize! (significantly high causes only)

☑ Georgia Rankable Causes. Uncheck box to use NCHS Rankable Causes.

Choose a Geography, a Time, and click Get Causes!

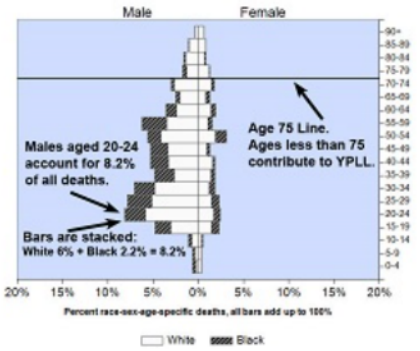
Switch Tool
Definitions
GA Rankable Definitions
NCHS Definitions
Get Causes!
Reset

OASIS Leading Causes of Premature Death Tool - Mortality Statistics

OASIS (Online Analytical Statistical Information System) is a suite of tools used to access the Georgia Department of Public Health's standardized health data repository.

- **This tool ranks the top 10 causes of Premature Death (measured by Years of Potential Life Lost (YPLL)), and displays Mortality Pyramid Charts for each.**
- **YPLL represents the sum of years of life lost before age 75. For example, a death at age 65 would be 10 years of potential life lost.**
- **The Mortality Pyramids show the percentage of deaths by Race, Sex, and Age, with a focus on those that occurred at ages less than 75 years.**
- Data are available for 1994 - current year by State, Public Health District, Perinatal Region and County.
- Multiple selections can be made by holding down the Control or Shift keys.
- The source of these data is Death Certificates reported to the Georgia Office of Vital Records, and represent Georgia residents whether the death occurred in Georgia or elsewhere. The data within serve as the official mortality statistics of Georgia. Reported causes of death are based on the Underlying Cause: that which initiated the events leading to death. Assignment of underlying cause is performed by the National Center for Health Statistics and uses ICD10 since 1999.

Example



IMPORTANT NOTICE ABOUT KNOWN DATA ISSUES - PLEASE REVIEW BEFORE USING THIS TOOL

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CONTACT US.

The top 10 causes of premature death (YPLL) are shown in a list:

Geography

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Barrow
Bartow
Ben Hill

Time

2024
2023
2022
2021
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011

Georgia Rankable Causes. Uncheck box to use NCHS Rankable Cau

Top 10 Causes of YPLL and % Total YPLL:

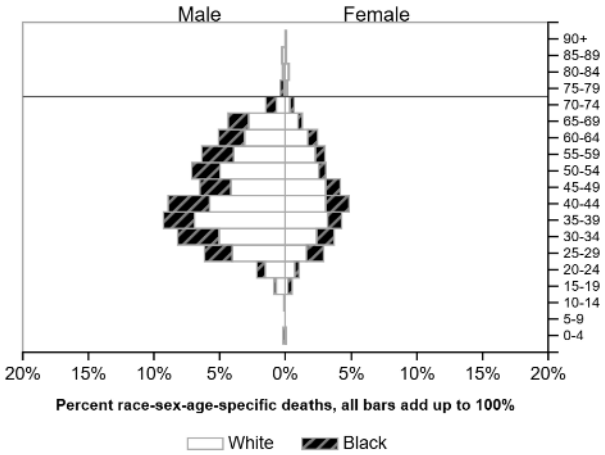
1) Accidental Poisoning and Exposure to Noxious Substances 7.17% (58,118.5)
2) Ischemic Heart and Vascular Disease 6.41% (52,027.5)
3) Intentional Self-Harm (Suicide) 6.06% (49,163.0)
4) Motor Vehicle Crashes 5.66% (45,928.5)
5) Assault (Homicide) 4.88% (39,590.5)
6) Essential (Primary) Hypertension and Hypertensive Renal, and Hea
Disease 4.55% (36,933.5)

Switch Tool
Definitions
A Rankable Definitions
NCHS Definitions
Get Causes!
Reset
Save Images

Mortality Pyramids of the Top 10 Causes* of Years of Potential Life Lost (YPLL), Georgia, 2024

1) Accidental Poisoning and Exposure to Noxious Substances

ICD-10 Codes: (X40-X49)



*Using Georgia Rankable Causes.

Age in Years	Black Males	White Males	Total Males	White Females	Black Females	Total Females	Total
0-4	3	0	3	1	0	1	4
5-9	0	0	0	0	0	0	0
10-14	1	1	2	0	0	0	2
15-19	3	13	16	4	6	10	26
20-24	12	29	41	14	6	20	61
25-29	40	77	117	31	24	55	172
30-34	60	96	156	45	25	70	226

Click each cause to see their mortality pyramid.

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Prioritize! (significantly high causes only)

Georgia Rankable Causes. Uncheck box to use NCHS Rankable Causes.

Top 10 Causes of YPLL and % Total YPLL:

1) Accidental Poisoning and Exposure to Noxious Substances 7.17% (58,118.5)
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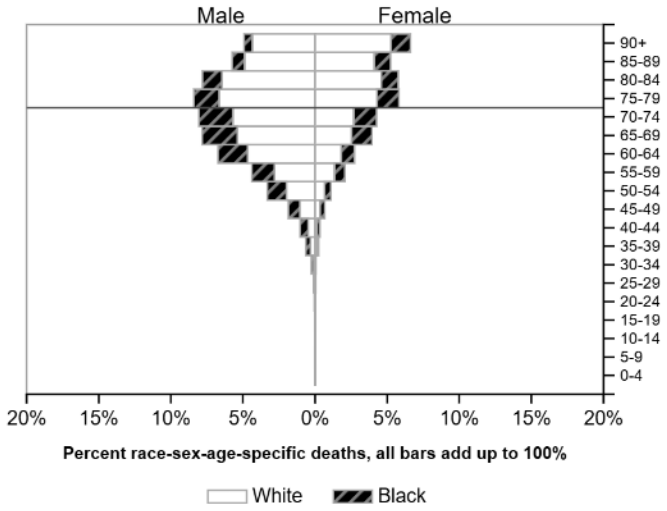
Switch Tool
Definitions
GA Rankable Definitions
NCHS Definitions
Get Causes!
Reset
Save Images

Mortality Pyramids of the Top 10 Causes* of Years of Potential Life Lost (YPLL), Georgia, 2024

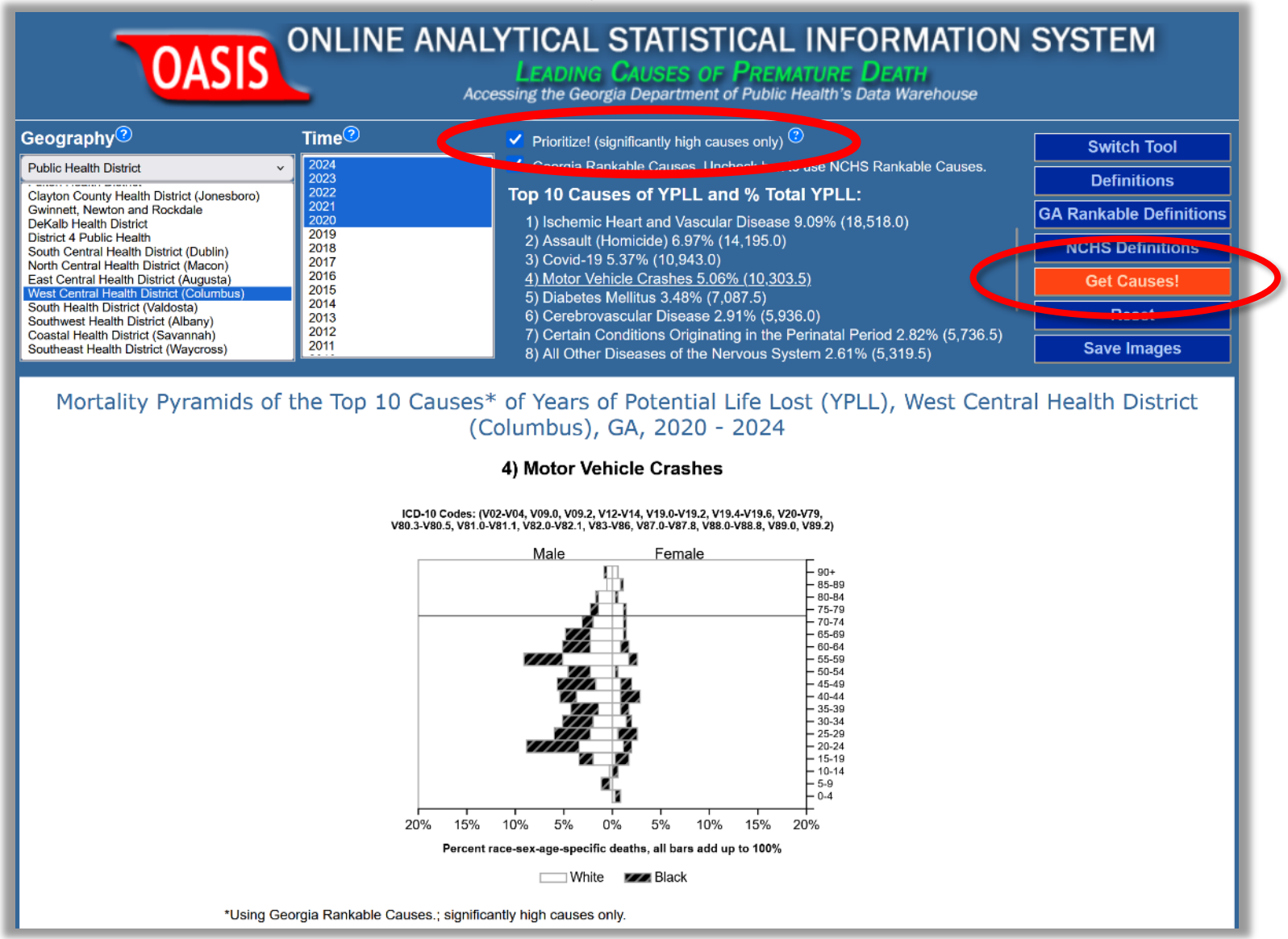
2) Ischemic Heart and Vascular Disease

ICD-10 Codes: (I20-I25, I70-I78.99)



*Using Georgia Rankable Causes.

Are there causes of premature death that occur significantly more than they should? Choose anything besides Georgia, check the **Prioritize!** checkbox, and Get Causes!



…that concludes this overview. Other notes:

- All OASIS tools have a Quick Start Guide.
- All tools: results can either be exported to Excel or saved as an image.
- CHNA Dashboard: Results can be exported directly into Word format.
- OASIS is developed in-house.
- All queries are done on-the-fly = Over 10^{100} possible combinations.
- If it's not on OASIS, just ask!

We hope this helps – please feel free to contact us with questions or for more info.

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Director
Fabio Machado, MPH
Data Quality Specialist & OASIS trainer
Sobia Sattar, MPH
Community Health Data Analyst

Office of Health Indicators for Planning (OHIP)
Epidemiology Program
Georgia Department of Public Health

Contact us at:

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GEORGIA DEPARTMENT OF PUBLIC HEALTH

https://oasis.state.ga.us